Drawn & Engraved by H.Bibby

NORTH TRANSEPT, GREAT EXHIBITION.

DEDICATED TO H.R.H. PRINCE ALBERT, K.G., ETC., ETC., ETC.

TALLIS'S

HISTORY AND DESCRIPTION

OF THE

CRYSTAL PALACE,

AND THE

Exhibition of the World's Industry in 1851;

ILLUSTRATED BY

BEAUTIFUL STEEL ENGRAVINGS,

FROM ORIGINAL DRAWINGS AND DAGUERREOTYPES,

BY BEARD MAYALL, ETC., ETC.

EDITED BY J. G. STRUTT, ESQ.

VOL. III.

PRINTED AND PUBLISHED BY
THE LONDON PRINTING AND PUBLISHING COMPANY,
LONDON AND NEW YORK.

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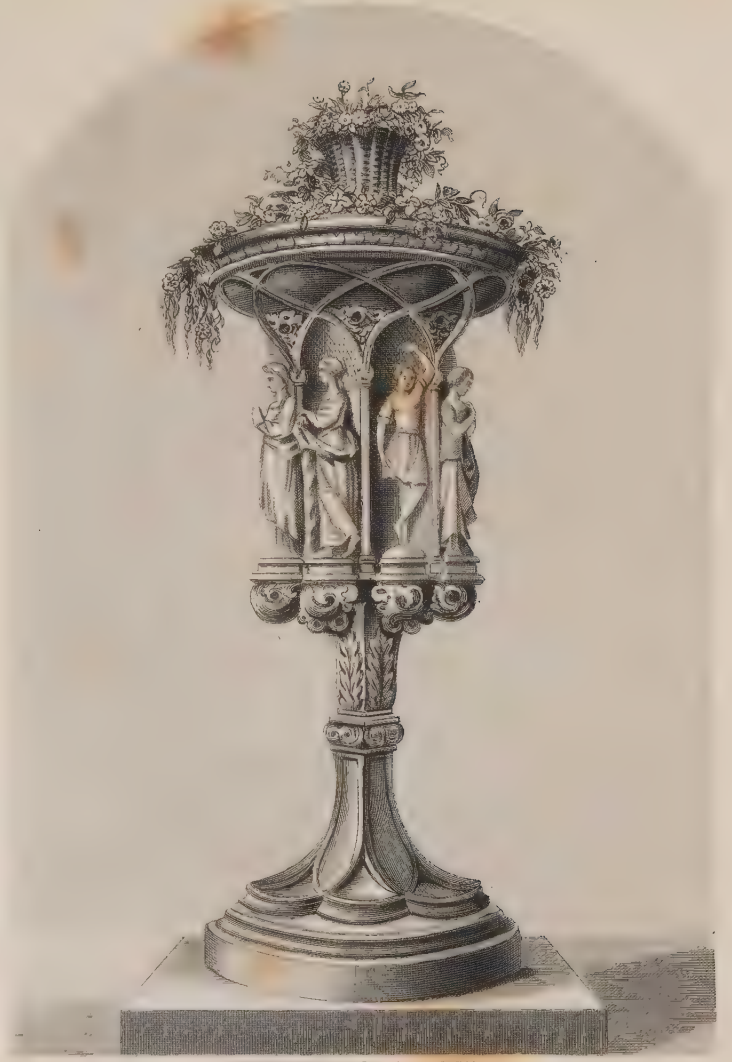
SCENE IN A MEXICAN COURT-YARD

M MONTANARIS MEXICAN FIGURES

Engraved by D Pound from a Drawing by J Tomlinson

DRAGGING THE DEAD BULL OUT OF THE ARENA

M MONTANARIS MEXICAN FIGURES



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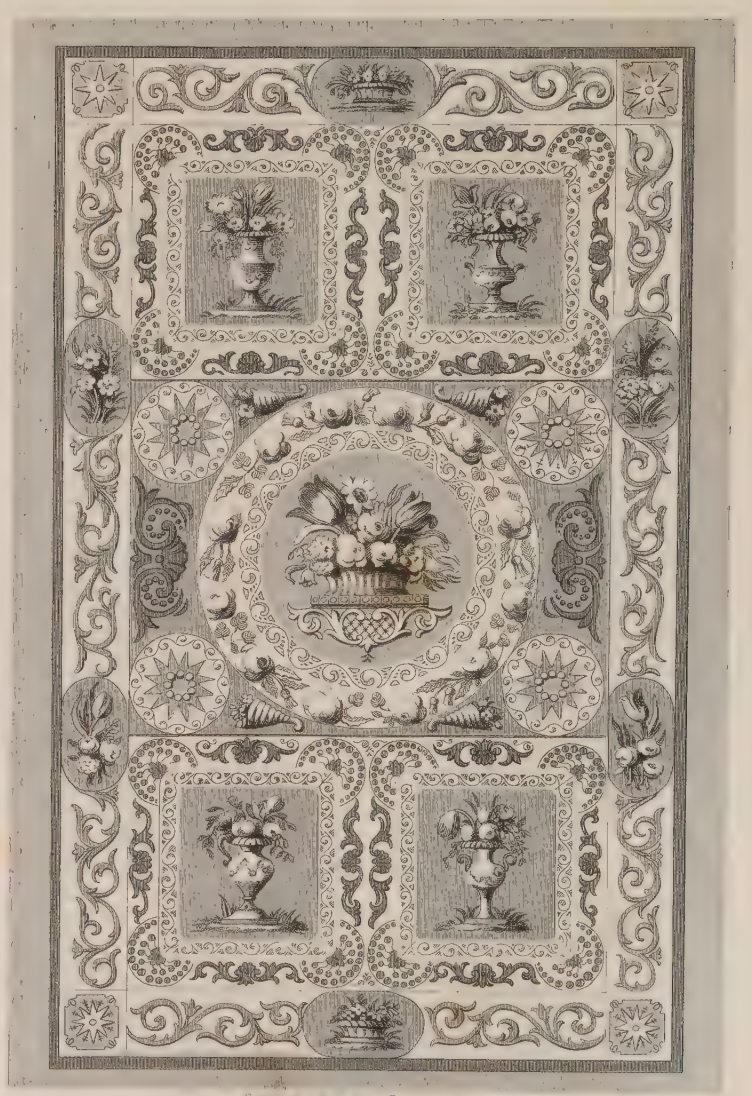
SILVER ICE DISH

BY DODD.

TRANSPARENT PAINTED BLIND.

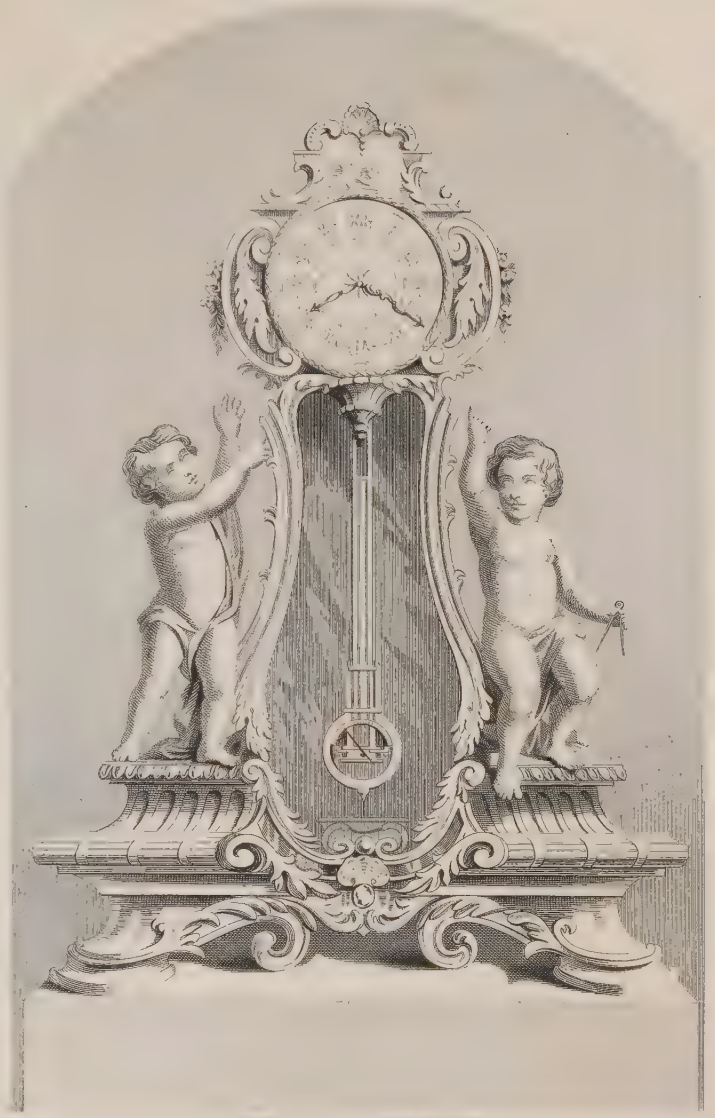
BY BACH.



THE 'BRITISH EMBLEMS'.

BY HULL & SONS BRISTOL.

EXHIBITED BY HUNT . ROSKILL



BRONZE CLOCK

ROYAL PORCELAIN MANUFACTORY AT MUNICH

ROYAL PORCELAIN MANUFACTORY AT DRESDEN

FIRE PLACE IN IRON AND ORMOULU

OF THE RENAISSANCE PERIOD — MANUFACTURED BY MESSRS HOALE & Co SHEFFIELD

MANTLE PIECE OF OAK CARVING

DESIGNED BY MR H CHATTON, ARCHT & MANUFACTURED BY MESSRS WYNNE & Co

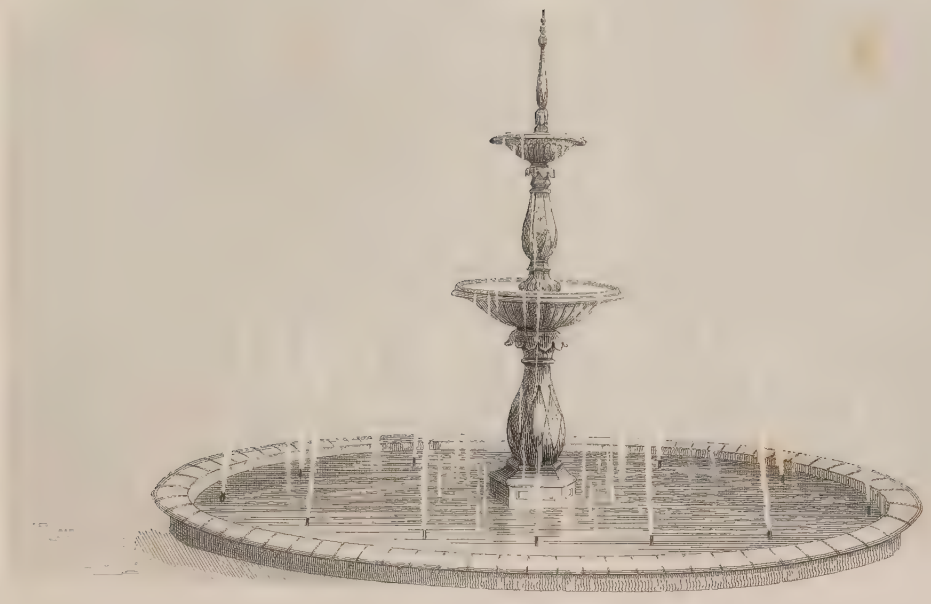
PAINTED WINDOW REPRESENTING DANTE AND SOME OF HIS IDEAS.

BY C. BERTINI MILAN.

STAINED GLASS WINDOW

THE LIFE OF ST PETER

BY J. A. GIBBS, NEWCASTLE



FOUNTAIN BY FREEMAN ROE & HANSON

NORTH TRANSEPT

ACIS AND GALATEA FOUNTAIN

BY J. THOMAS

BOG WOOD — TEAPOY

A. JONES DUBLIN

BOG WOOD — LADY'S WORK TABLE

A. JONES DUBLIN

A GROUP IN PLASTER BY ETEX

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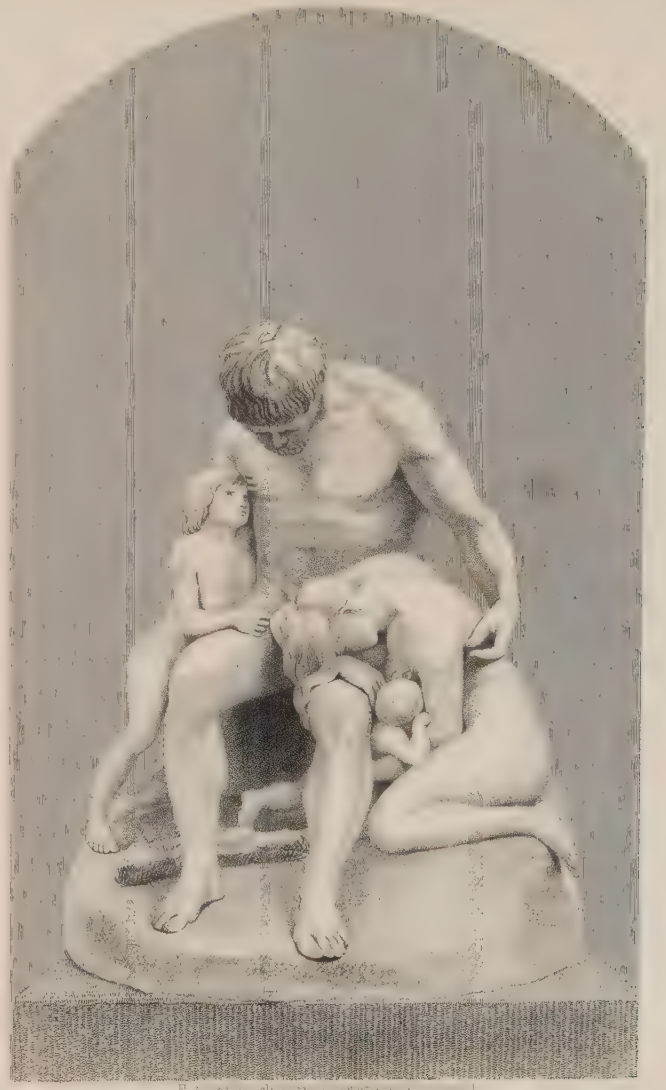

A GROUP IN PLASTER BY ETEX

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THE BOY ATTACKED BY A SERPENT

FROM THE ORIGINAL BY LECHESNE

THE DELIVERER

FROM THE ORIGINAL BY LECHESNE

from a Daguerr

Engraved by H. Bibby from a Mayall

TALLIS'S HISTORY AND DESCRIPTION

OF

THE CRYSTAL PALACE.

CHAPTER I.

WARREN'S LILY AND BEE—DAY IN THE CRYSTAL PALACE—THE QUEEN'S VISIT—VERRIER AND ADAMS — THE TRUE PHILOSOPHER'S STONE — PROFESSOR OWEN — VOLTAIRE'S "ZADIG" — A BEWILDERED POET—THE BEE, ETC.

We have already, on several former occasions, placed before our readers the lucubrations of learned men, of grave philosophers, and scientific writers, on the varied contents of the Crystal Palace; and we trust they have been edified accordingly. We now therefore propose, in order to combine amusement with instruction, to present them with some of the lighter flowers of literature which have been showered upon the same path; and we accordingly invite them to a short acquaintance with an imaginative little work by Mr. Warren, *The Lily and the Bee,* a well-chosen title, admirably suggestive to the practical mind of the whole aspect of the Exhibition—the lily representing beauty and art; the bee industry, organization, and labour. To keep the lily and the bee more constantly together than they have hitherto been—to wed art to labour—is one of the results we may in future hopefully look for. Our author plunges at once *in medias res;* we shall follow his example, and commence with—

"*Day in the Crystal Palace!*—There was music echoing through the transparent fabric. Fragrant flowers and graceful shrubs were blooming and exhaling sweet odours. Fountains were flashing and sparkling in the subdued sunlight: in living sculpture were suddenly seen the grand, the grotesque, the terrible, the beautiful; objects of every form and colour imaginable, far as the eye could reach, were dazzlingly intermingled; and there were present sixty thousand sons and daughters of Adam, passing and re-passing, ceaselessly: bewildered charmingly; gliding amidst bannered nations—through country after country renowned in ancient name, and great in modern: civilized and savage. From the far East and West, misty in distance, faintly-echoed martial strains, or the solemn anthem! The soul was approached through its highest senses, flooded with excitement; all its faculties were appealed to at once, and it sank for a while, exhausted, over-

whelmed. "Who can describe that astounding spectacle? Lost in a sense of what it is, who can think what it is like? Philosopher and poet are alike agitated and silent; gaze whithersoever they may, all is marvellous and affecting; showing new thoughts and emotions, and awakening oldest memories and associations — past, present, and future, linked together mystically, each imaging the other, kindling faint suggestion, with sudden startle. And where stood they? Scarce nine times had the moon performed her silent journey round the earth, since grass grew, refreshed with dew and zephyr, upon the spot on which was now a crystal palace, then not even imaged in the mind of its architect—now teeming with things rich and rare from well nigh every spot of earth on the terraqueous globe, telling—oh grand and overwhelming thought!—of the uttermost industry and intellect of Man, in every clime, of every hue, of every speech, since his Almighty Maker placed him upon the earth." With similar fecundity of imagination our author pursues the subject through several pages, in language perhaps a little overstrained, for the ear of ordinary mortals, but always glowing and enthusiastic, while his sentences are frequently enriched with a profusion of quotations as well from Holy Writ as from the works of our most esteemed authors, with the treasures of which his mind appears fully imbued. The visit of the queen to the various countries represented in the Exhibition is thus described:—"Yonder comes the queen! Not hideous shot, nor shell, tears open a crimson path; but one is melting before her,—melting with love and loyalty. All unguarded! No nodding plume, nor gleaming sabre, to startle or appal: she is moving amongst myriads—silent myriads—unheard by her, but not unfelt, their thoughts fondly flowing while she passes by. 'O, all from foreign lands, uncovered be awhile; behold a solemn sight—

A nation's heart in prayer:
And hear their prayer,
God save the Queen.'"

And he then recals by a few words some of the principal events and persons connected with each country. The best part of the book is, where the writer is most like himself, and is alluding to some few (a limited list) of the great ones of the day. Let us take a sentence or two in proof of our assertion, that it contains much that suggests thought. "Yonder are the twin sons of science, Le Verrier and Adams—a noble pair, in noble rivalry—England and France! Speaking modestly of their sublime discovery, though one which would have gladdened the heart of Newton—Uranus, saith one,—discovered by the father of our living Herschel, at once doubled the boundaries of the solar system; and, at a distance of eighteen hundred and twenty-two millions of miles, is observed somewhat disturbed in performing its journey: the two astronomers separately bent on discovering the cause, by a rare application of transcendant science, succeed at length in detecting the attractive influence of a remote unseen orb, a new planet: Neptune,—as far beyond Uranus as he beyond Saturn! at thirty times our own distance from the sun: two thousand eight hundred and fifty millions of miles off: moreover, not only pointing out where a planet would ere long be found, but weighing the mass of the predicted mysterious visitor, numbering the years of his revolution, and telling the dimensions of his stupendous orbit."* And elsewhere, after a long array of

* Given, says a Scotch astronomer,—in recording this amazing stretch of science and intellect,—the position, mass, and periodic times of two planets, the astronomer is able, though it is no easy task, to calculate the perturbation which each will produce on the other. But the problem resolved by these two French and English astronomers, viz., *given the perturbation* to find the *position*, *mass*, and *periodic time* of an unknown disturbing body, is one of such infinite difficulty, that certainly few astronomers believed it possible.

ancient names, recalled by the genius *loci*, he welcomes Des Cartes, Galileo, and Newton, with—

> "Ye later Ones!
> At length ye come, bringing the light
> Through the dreary night
> Long struggling, through the priestly fear
> That light could light extinguish,
> Truth contradict the Truth!
> O, foolish fear."

Our author has much to say on the subject of gems and diamonds and the Koh-i-Noor, but suddenly he breaks off, being told by "an ancient philosopher," who like himself was gazing at the wonders of the place, that he knew of a *stone*, not far away, infinitely more to be prized than the Koh-i-Noor—"wonderful to the world, if but the world would hear." We hope our readers *will*, however the world may be inclined. But to our text. It is the true "Philosopher's Stone"—a marvellous relic of remotest antiquity. "In cold Canada! a slab of plain grey stone, under deep strata for ages hid; inscribed by Nature's mystical finger with faintest character for reading of instructed eye. Millions of ages since have passed. When flourished the forests turned to coal, is but as yesterday in comparison of that far distant day, when that sea so gently kissed, or boisterously beat upon that ancient shore. There, all along that shore, those sands, now, this stone, a reptile crawled, slowly, painfully:" let us turn, however, to the note which explains, in less hyperbolical phraseology, this extraordinary relic:—

"The stone in question was transmitted to this country a few months since, by a Canadian geologist; who, not being a naturalist, entertained no suspicion that the marks which had arrested his attention, were the traces of an animal. He thought them likely to have been produced by the trail of a long sea-weed. He requested our far-famed zoologist, Owen, to examine the mysterious marks, and decipher them, if he could. After much thoughtful scrutiny, that gentleman found them to be small prints, occurring in regular succession, in pairs—extending in two parallel linear series, *with a continuous groove, midway* between them. Then he observed that one of the prints was larger than the other in each pair; and that both the larger and smaller print were short and broad, with indications of toes at their fore-part; and that the intervals between each pair, of the same side, were much less than those between the right and left pairs. Hence he inferred, that the impressions in question must have been produced by some *animal*, that had crawled or walked along that oldest of sandy shores; that such animal had been a quadruped, having the hind-feet larger and wider apart than the fore-feet—both fore and hind-feet being very short; and that the limbs of the right and left side were wide apart; wherefore the creature must have had a rounded and broad trunk, supported on short limbs, with rounded and stumpy feet, capable of taking only short steps. Then as to the midway grove—he at first suspected that it might have been produced by the trail of a *tail*. The impression was well defined throughout, midway between the right and left limbs: shallower, where the foot-prints indicated a steady rate of motion—(how delicately exact the observation!)—deeper where that motion had been retarded, and the animal's body had rested awhile on the sand. Hence the sagacious naturalist concluded that this midway groove impression must have been made by some hard projecting covering of the belly—such as would be made by the breast-plate of a tortoise. The broad trunk; the short steps; the stumpy feet, hardly capable of carrying the trunk clear of the ground—all this deducible solely from these faint foot-prints—seemed to bespeak the tortoise. *Experiment* succeded *observation*. Owen betook himself to lord Bacon's realised Atalantis the Zoological Garden in the Regent's Park,

and caused the living reptiles there to crawl over soils carefully prepared, so as to receive and retain distinctly the traces of their transit. The tortoise was found to have left impressions almost identical, or very closely resembling those preserved in the ancient rock: which had been ascertained to belong to the first-formed class of rocks, deposited from the sea. Prior to the discovery of this stone, geologists had not obtained evidence of the existence of any but the lowest organized plants and animals, such as zoophytes and marine mollusca, in these rocks. This stone may therefore be regarded as an exponent of indefinitely remote antiquity, referring high organization to a period infinitely beyond all previous supposition, or even imagination. The traces of the showers which may have beaten on the tortoise, as suggested in the text—'Behold the trace of the passing shower! That may have beat upon his horny back'—were sagaciously detected by an eminent living geologist, and deciphered from impressions made by the rain-drops falling on the soft sand; and the direction of the wind then blowing, by the unusual depths of the rain-pits, and the unequal height of its little circular wall, as the shower struck, obliquely, the ripple-ruffled surface. It is only on a *tidal* shore that such impressions can be received and retained: received during the ebb, and covered by fresh layers of fine sand at the flood. The traces of the ancient showers and winds, however, were not seen on the specimen deposited in the Crystal Palace, but on others now in London." What an admirable illustration of the Baconian process of arriving at results, by observation and experiment is here exhibited.

Our readers may perhaps recollect an account in Voltaire's *Zadig*, of a similar instance of sagacious observation and felicitous deduction. Indeed, it is so closely parallel with that of our modern philosopher, that we cannot refrain from quoting the passage. "Zadig," says Voltaire, "made it his especial study to observe the habits and peculiar instincts of plants and animals, and he consequently soon perceived in them a thousand differences, where other men would only see a mechanical uniformity. One day, threading the paths of a little wood, he saw running towards him one of the queen's eunuchs, followed by several officers of higher grade, who appeared in the greatest consternation, running here and there, like men beside themselves, in search of some precious object.—'Young man,' said the chief eunuch to him, 'have you seen the queen's favourite spaniel?' 'It is a spaniel bitch,' quietly observed Zadig: 'You are right,' replied the chief eunuch. 'And it is a very small one,' returned Zadig—'she has lately pupped; she is lame of the left fore-foot, and has very long ears.' 'You have doubtless seen it,' said the chief eunuch, quite out of breath. 'No,' replied Zadig, 'I have not seen it, nor did I even know whether the queen ever had such a dog or not.'

"Now, precisely at the same time it so happened, through one of the ordinary freaks of fortune, that the finest horse in the king's stable had broke loose from the hands of the groom in the plains of Babylon. The chief huntsman and all his subordinates were as anxious in its pursuit, as the chief eunuch after the dog. The master of the horse enquired of Zadig, if he had not seen the king's palfrey pass that way. 'He has the smoothest gallop in the world,' observed Zadig; 'he is five feet in height; his hoofs are remarkably small; his tail is three feet and-a-half in length; the studs of his bridle are of gold of twenty-three carats; his shoes are of fine silver.' 'Which road did he take? where shall I find him?' interrogated the huntsman. 'I have seen no such horse,' said Zadig, 'nor have I ever heard speak of him.'

"The chief huntsman and the chief eunuch both thought that Zadig had stolen the horse and the dog; they caused him to be brought before the council of the grand Desterham, who condemned him to the knout, and to perpetual banishment in Siberia. The sentence was hardly passed when both the horse and the dog were found. The learned judges were consequently under the painful necessity of reversing their decision; in lieu thereof,

they however condemned Zadig to pay a fine of four hundred ounces of gold, for having asserted that he had not seen, what he most assuredly must have seen. This fine was duly paid; after which, Zadig was allowed to plead his cause before the grand council of Desterham; his speech was to the following effect:—'Stars of justice, profundities of science, mirrors of truth, having the ponderosity of lead, the hardness of steel, the brilliancy of the diamond, and much affinity with gold, since it is permitted me to speak before your august assembly, I swear to you by Orosmades, that I never cast eyes upon the respectable animal belonging to the queen, nor upon the sacred courser of the king of kings. I will relate what actually occurred. As I was directing my steps towards the little wood where I afterwards met the venerable eunuch and the most illustrious grand huntsman, I observed upon the sand the traces of an animal, which I readily made out to be those of a small dog. Between the foot-marks, wherever the sand was a little elevated, I noticed a slightly indented furrow, which led me to conclude the that dog must have been a female, whose teats were hanging low, and consequently that she must have produced a family very recently. Other marks of a different character showed that the surface of the sand on the outside of the fore-feet had been regularly and slightly disturbed, from which I surmised her ears were of considerable length; and as I remarked that the sand was always less hollowed by one foot than by the three others, I naturally inferred that the dog of our august queen was a little lame, if I may venture to say so.'"

In an equally ingenious manner, Zadig accounts for the accurate description he had given of the king's palfrey, the particulars of which he had also gathered from a variety of indications he had made upon the road. The judges were all in a transport of delight at the extraordinary proofs of Zadig's profound and acute discrimination, and immense was the applause that was lavished upon him. His fame was trumpeted about by the courtiers on every side, although some of the venerable magi were of opinion that he deserved to be burned alive as a sorcerer. The king however thought otherwise, and the fine which he had paid of four hundred ounces of gold was ordered to be restored to him; which was accordingly done with great pomp and ceremony by the officers of the court, who retained, however, in their own hands, the moderate sum of three hundred and ninety-eight ounces, out of the four hundred, for legal expenses; besides which Zadig was expected to compliment the officials with a handsome gratuity. But we must now take leave of the sage and sarcastic philosopher of Ferney, and revert once more to the pages of *The Lily and the Bee*.

We select his description of "a bewildered poet," lost in the intricate mazes of the Fairy Palace. "Yonder is a musing poet: gazing silently eastward—westward—northward—southward: above—below: everywhere pouring a living tide of wonder—nor silent—nor noisy—a strange hum—a radiant flood of light—many-hued objects, now glittering brightly—then glistening—fainter and fainter, till lost in distance: whence come faintly the strains of rich music—intermingling mysteriously with the gentle hum around him. Gliding about, forms of exquisite beauty, most delicate loveliness—living, eclipsing the sculptured beauty, at which it is looking, with blushing consciousness. Yonder, a fair daughter of Eve, before the mother of all living: her shuddering eye glancing at the serpent, her ear catching the deadly whisper. Far away, in shape and gesture proudly eminent, Satan—as it were showing all the kingdoms of the world, and the glory of them in a moment of time. There they are! great nations, new and old, with their bright banners streaming: helm: lance: sabre—scimitar. See there, solemnly silent all. Crusaders—the crashing of a mailed throng—soundless—banners—the crescent—cross—fierce-gleaming Saracen—Saladin—Cœur-de-Lion—glorious De Bouillon. * * * A dim religious light—Dante—Tasso—Milton—Shakspere—there they are! Could

they see but this—or he, with eyes like theirs—be stirred with thoughts like theirs—ah! sinking deeper still in reverie—dreamy—delicious! * * Still the hum—the dazzle.

Gifted one—up, laureate! wake! Ay—it is no dream—but radiant reality—up, laureate, with thy lyre, and rapturously sweep its thrilling strings! Give forth strains, echoing through all time to come, surpassing Pindar's, as thine his theme transcendeth far —." How far the strains of the poet laureate are likely to out-rival those of Pindar we will not take upon ourselves to decide. Our old friend Horace observes—

"Pindarum quisquis studet æmulari,
Jule, ceratis ope Dædaleâ
Nititur pennis, vitreo daturus
Nomina ponto."

Leaving, however, the "gifted one," to recover of his bewilderment, we will turn to Mr. Warren's address to that industrious little insect, the bee—

"That at his flowery work doth sing,"

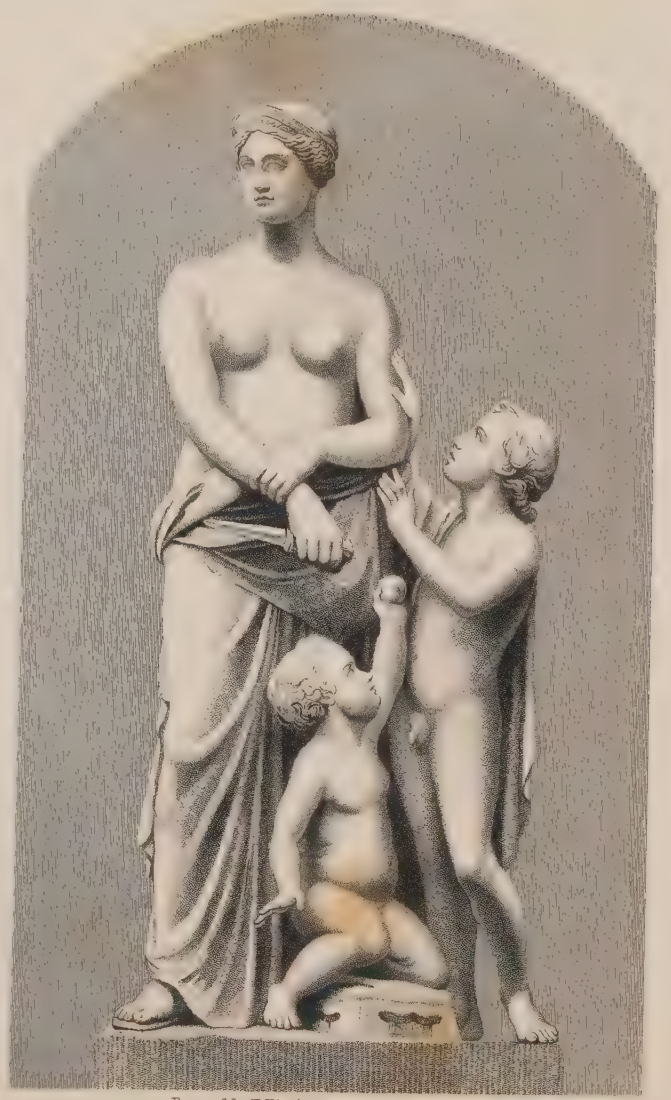
and select a few of the most striking passages.

"O, artificer consummate! exquisite! 'O, besy bee, withouten guile!' on thee I gaze! I, in this hive of mine, thee, in thine!—Dear insect! I would speak with thee! I feel a sympathy of kin with thee!—Whence camest thou, mysterious little one? Co-tenant of the globe with me! were thy first parents twin tenants of the garden, paradise, with mine, all happy, bright and beautiful, and freshly into being called, by God? * * * After six thousand years of slaughter and of spoil, ye still are with us, plying your innocent toils—ye victims! rivals! monitors of man! * * * Exhibitor of industry, I do misgive me that I see, in thee, a small unmedalled one!—In this our palace hive! our royal hive! were ye ordained to gather for yourselves alone, and not for us, though from our flowers? Ye skilled ones! why keep your science all to yourselves? For sixty centuries we taste, luxurious, what you gather and prepare, but have not learned your art, and cannot supersede your toils! * * * * Your structure and your doings, little Mystery, perplexed great Aristotle. And, twenty centuries since past away, a mystery shrouds you yet—seen deepest into by a blind bee-lover!" * * * Behold its architecture! In a note on this passage, we are told that the geometrical form of each cell constructed by the bee, is absolute perfection, as far as we are able to judge of the objects had in view; and has excited the admiration and amazement of ancient and modern mathematicians. At what precise angle the three planes of the hexagonal prism ought to meet, so as to secure the greatest strength and commodiousness with the least possible waste of materials, is a problem of the highest mathematics, resolvable only by the aid of the infinitesimal calculus, or problems of *maxima* and *minima*. Maclaurin, the worthy disciple of Newton, by a fluxionary calculation, succeeded at length in determining the required angle, precisely. It was the very angle adopted by the bee!

These sagacious insects ventilate their hives. How this indispensable process was carried on, baffled the research and speculation of ages. At length the mystery was solved, and recently. The bees appointed for the purpose, stand waving their wings—with a motion different from that used in flight—with untiring energy; and, to gain the full effect of it, *first attach their feet firmly to the floor*, and by these means, cause distinctly-perceptible currents of air to circulate through the hive! Before we close our remarks on this interesting little volume, we will indulge our readers with the following graphic description of—

NIGHT, IN THE CRYSTAL PALACE.

"The seventy thousand gone; All gone, and I ALONE! How dread this silence!



Engraved by Hollis, from a Daguerreotype by Beard.

THE JEALOUSY OF MEDIA

FROM THE ORIGINAL BY MARY THORNEYCROFT.

Engraved by Hollis from a Daguerreotype by Beard.

ALFRED THE GREAT RECEIVING FROM HIS MOTHER THE BOOK OF SAXON POETRY

FROM THE ORIGINAL BY MARY THORNEYCROFT.

The seventy thousand, with bright sunshine, gone, and I alone—and moonlight, all irradiates solemnly. All gone!—the living stream, with its mysterious hum—my brethren and my sisters! gone! From every clime, of every hue and every tongue! But a few hours ago, all here: gleeful, eager, curious all, admiring, all—instructed, thousands—some stirred with deep thoughts, and fixed on musings strange. But now, thus far on in the night, all, all, asleep—past, present, future, melted into ONE! Dream-dazzled some—seeing all the world, and all its denizens, at once—in every place, at once—hearing again the murmur—hum—the pealing organ.—Ay, all alone. The very bees, wearied, are all asleep, in yonder hive of theirs, save where before the porch, stand tiny sentinels, within, without—all vigilant, as ours.

"There's not a breath of sighing air to wake yon sleeping flowers, or stir the leaves of yon high trees, stately sentries o'er the flowers. Yon banners all hang waveless—their proud devices now scarce visible—embleming nations, restless! stern! in battle order seeming even yet!—startled some, convulsed but recently. But now, at length, ASLEEP—all here sleeping grandly secure, serene, reliant—lately worn with war and tumult: now soothed into repose by sights and sounds of an unwonted unity, and peace, and concord, as though they owned the presence awful, of Him who maketh wars to cease in the world, saying, be still, and know that I am God."

Our transcendentalist continues his meditations, till he becomes completely bewildered, and confesses that he does not well know whether he is awake, or sleeping, or dreaming; in the meanwhile the ghosts of the mighty dead, taking advantage, we suppose, of the fitness of time and place, and finding their subject "apt," as the ghost in *Hamlet* says, gradually arise before him—"All solemn, amazed—a royal group! great conquerors—Alexander—great Cæsar too—Napoleon." Then we have Alfred, our Saxon monarch, who is heard to repeat a portion of the extant poem, given at length in Turner's *History of the Anglo-Saxons*. Then appear the shades of Aristotle, Bacon, Archimedes, Cicero, and a whole host of philosophers, until—and we do not wonder at it—the beholder of all these supernatural appearances becomes himself alarmed, and trembling, exclaims, as our readers, we doubt not, will also be tempted to do, "Awful ghosts, away!" The pope nevertheless pays him a visit, but meets with so little courtesy at his hands, that he is glad to hide his diminished head, and with his delusions and his falsehoods, and "his counterfeited key," to vanish out of sight, as the awful shade of Newton strides majestically past, "shedding light." But we will not dwell any longer on the visionary ecstacies that our author continues to experience throughout the livelong night, but rather, with him, hail the approach of morn, before whose welcome presence it has been the custom, from time immemorial, for all ghosts and goblins to depart quietly to their several resting-places, and to cease from troubling the inhabitants of this lower world. We shall close our chapter, and take leave of our learned author, with the following poetical invocation:—

"Sweet sun of early morn!
Freshening all nature, sleeping till thou wak'st them up
Cheering the sons of men—
Wake, too, ye dewy flowers!
Ye, too, deep hidden in the dark, have slept the livelong night
Under your tree sentinel
Night hath passed, and dawns the day!"

CHAPTER II.

SCULPTURE—*concluded.*

THE "FIRST SORROW," BY MACDOWELL—LINES BY ALARIC WATTS—TITANIA, ARIEL, PUCK, BY LOUGH—THE MOURNERS—FOLEY'S WANDERER—PANORMO'S CARACTACUS—VILLA'S HAGAR AND ISMAEL—JEHOTTE'S MADONNA—ANCIENT BRITON, BY ADAMS—THE ADORATION OF THE VIRGIN, BY GEERTS—SHIPWRECKED SAILOR BOY, BY SIBSON—RETURN OF THE PET DOVE, BY FARRELL —ANDROMEDA, BY BELL—SABRINA, ETC.

"Yet once more, O ye laurels, and once more
Ye myrtles brown, with ivy never sere,
I come to pluck your berries ———."—*Milton.*

And here we pause in our quotation: with the "harsh" and the "crude," we desire no acquaintance. In our last chapter on sculpture, in taking a temporary leave of the interesting topic, we promised our readers a final examination of the sculptor's labours in the Crystal Palace, a last survey of the ground from which we had already gathered so many bright and beautiful flowers. We now, therefore, propose to conduct them, for the last time, into the hallowed field, and, like the careful gleaner, collect the remaining produce of the cultivated soil, in order to transplant it into our valuable pages; wherein, through the combined efforts of the pen and the burin, the gifted artist may reasonably hope to escape the yawning gulf of oblivion, and be enabled to exclaim with the Roman poet—

"Non omnis moriar."

With this idea before us, we ask our readers to accompany us in an imaginative ramble through the vast fabric which it is our province to describe, and once more bestow their attention on the various specimens of the plastic art, which, within its fairy precincts, creative genius, from every clime, had so profusely lavished. Let us enter, therefore, on our field of observation, and use, as Pope advises, our critical acumen discreetly.

We will begin with Macdowell's beautiful portraiture of "The First Sorrow" of a lovely girl weeping over her dead bird, a production which we have already briefly noticed in these pages. On bestowing a second glance upon it, the following touching lines, called forth from the gentle muse of Alaric Watts, ever ready to sympathise in the finer feelings of the heart, returned to our remembrance:—

"'Tis her first sorrow; but to her as deep
As the great griefs maturer hearts that wring,
When some strong wrench, undreamed of bids us weep
O'er the lost hope to which we loved to cling!

The Bird is dead;—the nursling of her hand,
That from her cup the honied dew would sip,—
That on her finger used to take his stand,
And peck the mimic cherry on her lip.

The willing captive that her eye could chain,
Her voice arrest, howe'er inclined to roam,
The household god (worshipped, alas! in vain),
Whose radiant wings flashed sunshine through her home,—

Pressed to her bosom, now can feel no more
The genial warmth of old he used to love;
His sportive wiles and truant flights are o'er:—
When was the falcon tender to the dove?

THALIA

FROM THE ORIGINAL BY J.G LOUGH

AURA

FROM THE ORIGINAL BY J.G LOUGH

"'Twas but a bird;" but when life's years are few,
How slight a thing may make our sum of bliss!
Cold is the heart that needs be taught anew,
Trifles oft form the joys that most we miss!

The soft, pure wax of Childhood's ductile breast
Will yield an impress to the gentle touch;
They err who make its little griefs their jest,
Slight ills are sorrows still, if felt as such.

"'Twas but a bird," the world's stern stoic cries,
"And myriad birds survive as fair to see;"
'Twas but a bird to *some*," her heart replies,
"But playmate, friend, companion—all to *me*!"

'Tis her first sorrow,—and she feels the more
That sorrow's name she scarce hath known till now;
But the full burst of keener anguish o'er,
A softer shade hath settled on her brow.

The bitter tears that would not be repressed
Are dried, like dew-drops on the sun-touched leaf;
The deep, wild sobs that lately stirred her breast
At length have yielded to a tenderer grief.

She weeps no more,—her very sighs are stilled,—
A tranquil sadness breathes from her sweet face;
As though her mind, with soothing memories filled,
Had nothing left to sorrow—but its grace!

The Sculptor marked the change with earnest eyes;
He knew the phase whence fame might best be won;
And when her grief assumed its loveliest guise,
He struck her chastened beauty into stone!"

Thus it is that images of the beautiful or the sublime are "twice blessed," first as endless sources of enjoyment to those with whom they originate, and again as calling forth in kindred minds, answering images, reflecting the same refinement of ideas, under equally captivating diversity of form. If, however, the poet is occasionally inspired by the sculptor, the reverse is far more frequently the case. Witness the bard of Avon, whose delightful creations in the fairy dream of a midsummer night, and in the still wilder imagery of *The Tempest*, appeared to have captivated the imagination of the sculptor Lough, in his personification of "Ariel," that "delicate sprite,"—in "Titania," queen of the fairy race, and in the mischievous "Puck," or "Robin Goodfellow, that shrewd and elfin sprite," who says of himself—

"I am that merry wanderer of the night,
I jest to Oberon, and make him smile,
When I a fat and bean-fed horse beguile
Neighing in likeness of a filly-foal;
And sometimes lurk I in a gossip's bowl,
In very likeness of a roasted crab;
And, when she drinks, against her lips I bob
And on her wither'd dew-lap pour the ale."

We did not, however, recognise in the heavily-draped figure of the sculptor the airy being of the poet, who undertook to—

"Put a girdle round about the earth
In forty minutes."

Neither could we trace in his countenance that inimitable expression of fun and mischief which sir Joshua Reynolds so admirably impressed upon the canvas, in his celebrated

picture (painted, we believe, for the Shakspere Gallery) of "Puck," or "Robin Goodfellow," seated upon a mushroom. In "Titania," Mr. Lough has been more successful, inasmuch as he has imparted to his marble a considerable degree of grace and elegance in this representation of the queen of the fairy race, although we must at the same time observe that there was too much of earthly reality about his conception, to convey adequately to our minds the rapt imagination of the poet. The same remark may also apply to "quaint Ariel," that "fine apparition" of the poet's brain, whose magic song—

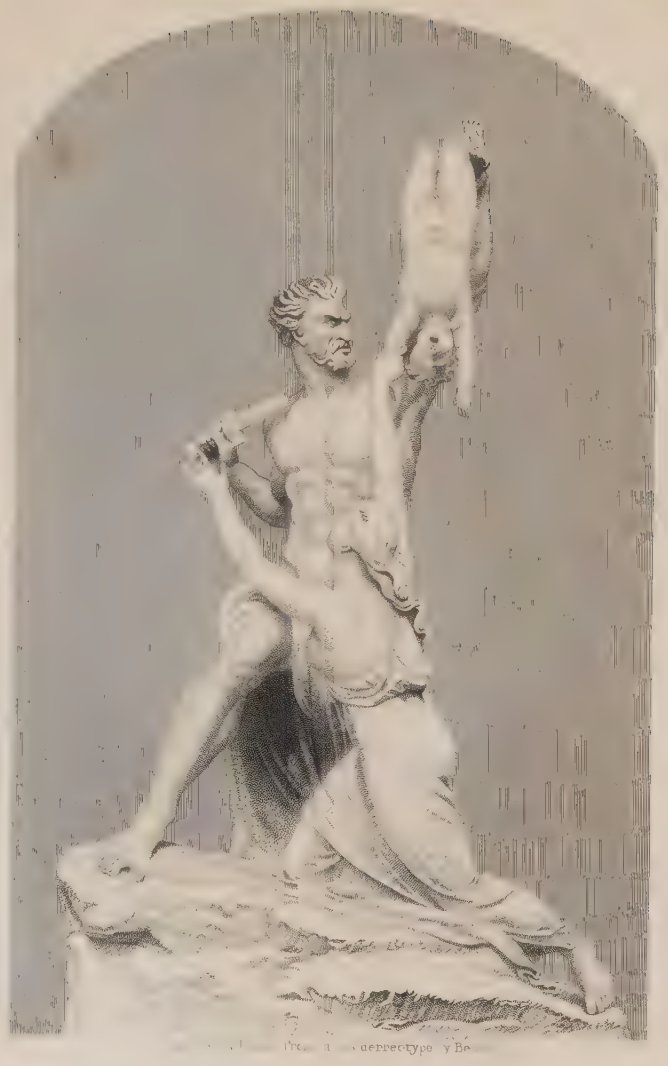
"Come unto these yellow sands,"

even now visits our ears, with the ravishing notes of Henry Purcell, that unrivalled master of melody, and fully equal in beauty and fertility of invention to the most celebrated of the favoured sons of Italy.

Mr. Lough also exhibited an equestrian plaster group entitled, "The Mourners," which had numberless admirers amongst the idlers who thronged the main avenues of the Palace of Industry; and it spoke home to the feelings of many of that extensive class whose hearts are always "open to a tale of distress." If the heart, therefore, were the only guide to be consulted in the consideration of works of design, undoubtedly Mr. Lough might be said to have achieved a very great success. In point of sentiment, however, even of every-day sentiment, there did appear to us a little extravagance and inconsistency in placing a horse and a Christian widow in a partnership of sorrow. For even supposing the horse had a right to indulge his feelings on the occasion of the loss of a good master, as well as the bereaved wife, he might have been kept a little in the back-ground; at least, the woman should not have been called upon to bestow any of her attentions upon the dumb animal, when she should have been exclusively engrossed with the appalling sight of a husband, untimely slain. These are errors of poetic judgment, which throw sentiment into ridicule, and reduce art to the level of an Astley's melodrama. As for the idea of the group itself, it was obviously taken from Horace Vernet's celebrated picture of "The Dead Trumpeter." In that work, however, the sentiment is more consistently carried out; the mourners over the corpse of the soldier who has just been shot dead from off his saddle, are the horse and a favourite dog, who licks the yet bleeding wound. The horse by his startled look and cautious tread, tells the whole story, which is true to nature. But there is no arbitrary and artificial blending of brute instinct and human sorrow. Finally, we must add, that the subject, from the very form of the outline of the objects introduced, whilst very appropriate for a painting, was wholly improper for a work of sculpture, unless in the modified form of a bas-relief.

Foley's "Wanderer," told a plaintive tale of the "winter's wind," which blows and whistles about him, and threatens to tear his cloak from his back. He casts an appealing look to heaven, and struggles on still against its vigour.

"The Liberation of Caractacus," by Panormo, a student of the Royal Irish Academy, although somewhat roughly modelled, and not very correct in point of drawing, was yet an expressive piece of sculpture. The incident represented is well known to all readers of our country's history. Caractacus, after nine years unequal combat with the Romans, is subdued and taken captive, along with others, to Rome. Whilst being paraded through the magnificent streets of that city, he exclaims in a tone of sublime melancholy, "How is it possible that a people who are possessed of such magnificence at home, should envy me a poor cottage in Britain!" The emperor Claudius was so affected by the homely truth of these few words, which he overheard, and the noble and interesting bearing of his royal captive, that he immediately ordered him to be set at liberty, together with the rest of the prisoners.



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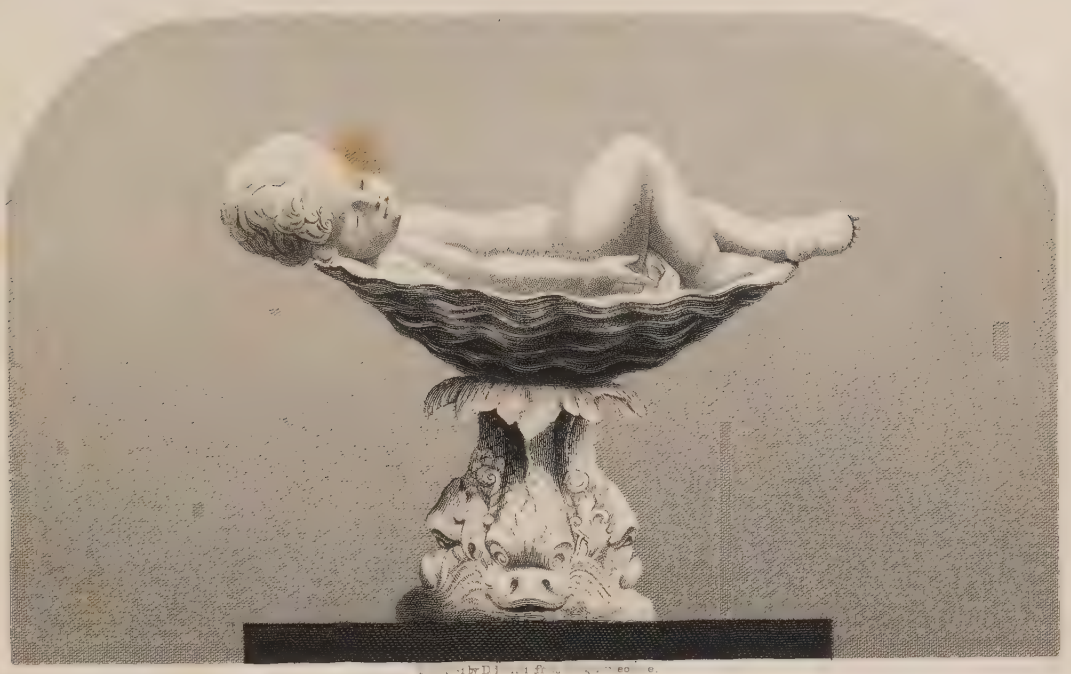
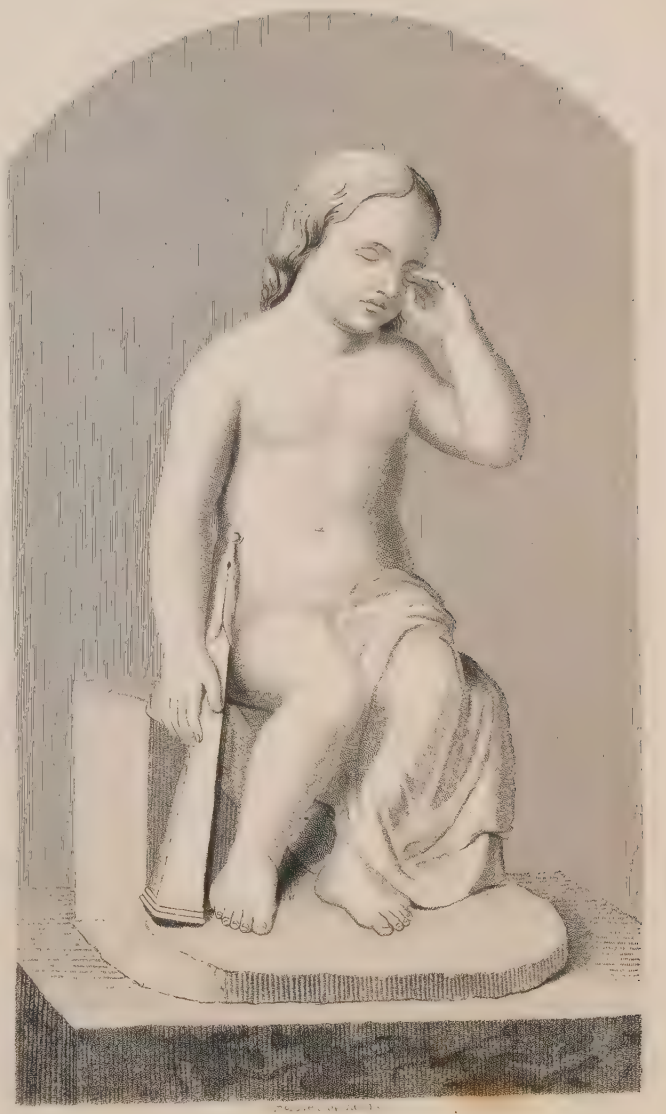


THE CRADLE OF LOVE.

THE ORIGINAL BY G. GEEFS, BELGIUM

THE INFANT MOSES.

THE ORIGINAL BY DE CUYPER, ANTWERP



EARLY SORROW

FROM THE ORIGINAL BY J. FARRELL.

Engraved by Hollis

THE PET DOVES RETURN.

FROM THE ORIGINAL BY J. FARRELL

We have already noticed the subject of "Hagar and Ismael" from the chisel of Signor Strazzi, of Milan, as well as that of Max, of Prague; and to both these sculptors we awarded the praise that was justly due to them. We now have to make favourable mention of a small marble group on the same subject by Signor Villa, of Florence, who has chosen a different point of time from that selected by the other two artists. Hagar, in the present instance, was applying the bowl of water to the parched lips of her son. There was not perhaps the same amount of poetic interest in this case as in the others; but what the subject afforded, Signor Villa did ample justice to in his very pleasing and carefully executed composition.

A "Madonna," by Jehotte, was treated in a manner peculiar to the Belgian school, combining great study and laboured effects, but very little of the true inspiration of genius. In accordance with the doctrine of the Roman catholic church, Mary was treated as the principal object in the group, while the infant Christ held a subordinate position. The mother was represented as bruising the head of the serpent; contrary to the orthodox and obvious meaning of the words of the prophecy:—"*Her seed* shall bruise thy head."

Among other objects worthy of attention, we must notice the following specimens:—"The figure of an Ancient Briton, looking out as a scout," executed in plaster by Mr. Adams, which evinced considerable spirit and originality of conception. A superb group by Mr. C. Wyatt, representing, in life-size, a horse and dragon, "the faithful friend of man trampling under-foot his most insidious enemy." This was a noble conception, intended to typify the triumph of the intellectual power over the sensual and brutal tendencies of man, the horse being the representative of the nobler quality, and the traditional serpent the emblem of the other.—"The Adoration of the Virgin," by Geerts, of Louvain. This subject, always attractive to poets and painters, was treated in a manner at once novel and refined. The angels grouped round the mother of Christ—singing at her feet, and crowning her with glory—were well conceived, and happily realised in this highly-finished *alto-relievo*.—"The Shipwrecked Sailor-boy," well executed in plaster by Mr. Henry Sibson, of St. John's-wood, was situated on the west side of the north transept, near the refreshment-stall. The boy held in his right hand a miniature of his mother. On the pedestal was the following inscription:—"Almighty Father! Oh protect my poor widowed mother." He appeared to be cast by the last wave on a low rock just above the water's level. It was a performance that was certain to enlist the sympathies of all mothers who have sons at sea. It seemed almost a realisation of the refrain of the old song:—

> "His purse soon filled with foreign gold
> He hastened home with joy;
> When, wrecked in sight of port, behold
> A wretched cabin boy."

"The Return of the pet Dove," by Farrell, was exceedingly creditable to the state of the plastic art in the Emerald Isle. The idea sought to be embodied was highly poetical, and the execution was fully worthy of the subject. This, with the same artist's "Early Sorrow," a weeping child, were placed in the British Sculpture Court. We must also bestow a favourable glance at the "Andromeda," by J. Bell, certainly one of the most graceful of Mr. Bell's numerous productions, and it was most satisfactorily cast by the Colebrook-dale Company. Descending to details, we may object with justice to the elaborate treatment of the chain, and to its very artificial disposition. It must be obvious, that such a chain, so disposed, could not have been attempted in marble or plaster; and the pains bestowed upon it, and ostentatious manner in which it was

displayed, the material happening to be metal, betrays an error in judgment. There is no honour in producing in bronze an article which any manufacturer could make by the dozen; the chain incident should therefore have been neglected, or treated conventionally, as almost beneath the attention of the artist, instead of being seized upon and made the most of, as was evidently the case. This work was subsequently purchased by Her Majesty.

Among the specimens of minor works of art, the statuette of "Sabrina," from the porcelain manufactory of Messrs. Copeland, held a high place. We omitted, in our article on "Statuary Porcelain," to notice this sweet damsel who

"Commended her fair innocence to the flood,"

and who, received by the nymphs that in the waters played,

"Underwent a quick immortal change."

She was represented sitting, as Milton beautifully describes:—

"Under the glassy, cool, translucent wave,
By the rushy-fringed bank,
Where grow the willow and osier dank,"

having left her "sliding chariot,"

'Thick set with agate and the azure sheen
Of turkis blue and emerald green,'

ready to come at the invitation of the spirit to the aid of the brothers and the enchanted lady. "Sabrina is her name, a virgin pure;" and surely never was "virgin pure" more admirably pourtrayed.

Before we conclude this our final chapter on the sculpture of the Great Exhibition, it will not, we hope, be considered inappropriate if we allude to a question that has lately been agitated, respecting the selection of some fit object of sculpture, to commemorate the brief but glorious existence of the great wonder of the age. Numerous meetings have been held, at which wealth and talent were ably represented, but judgment did not, in an equal degree, prevail in the council. The *haute noblesse*, favouring one of their own *caste*, proposed to erect the equestrian statue of Richard Cœur de Lion, by the Baron Marochetti, a performance of unquestionable merit, as we have before stated, as a fitting memorial of the Great Peace Congress of 1851. Funds were immediately raised for the purchase of the statue from the worthy baron, and the public were made acquainted with the idea. But the outcry against so unheard-of a proposition as the setting up the statue of a warlike king of bye-gone days to celebrate a peaceful establishment of the present period, was so loudly raised in the leading journals, particularly in the columns of the *Daily News*, that the final carrying it out appears to be, for the present at least, abandoned. In the meanwhile counter-propositions have been suggested of a more appropriate nature, such as the adoption of a group of some of our most learned and scientific men, the true glory of our nation, whose labours contributed so largely to the success of the undertaking; or if a royal personage was considered to be indispensable, why, it was asked, should not a statue of Prince Albert, the original proposer of the Great Exhibition, be placed, *in memoria perpetua*, on the very spot where the graceful fabric stood? By no one, however, was the insane idea more eloquently denounced than by one of our most popular writers on all subjects connected with the interests of his country and the benefit of the world at large—Mr. James Silk Buckingham—whose admirable remarks we beg leave to present to our readers. We shall quote his own words.

"At the same moment, too, that we are boasting of our love of peace, and deservedly honouring our queen and her consort for the establishment of the Great Exhibition of

1851, as the 'Temple of Peace,' to teach all nations the practice as well as doctrine of universal brotherhood—we are engaged in an attempt to make new conquests of Burmah, Ava, and Pegu, in the East; and summoning the *élite* of the nation to raise a large subscription for the purpose of setting up, in the metropolis, as a 'Memorial of this Universal Peace-proclaiming Exhibition of 1851,' the equestrian statue of Richard Cœur de Lion, one of the greatest invaders and marauders that Europe ever produced; who began life by rebelling against his father, while yet a mere boy—who carried on a horrible war against his elder brother, in which neither party gave quarter—who renewed the war against his own parent, and besieged him in his castle of Chalon, during which siege his father died;—who, after his capture of Acre, in the Crusades, refused to receive a ransom for the prisoners he had taken, and murdered 5,000 of them in cold blood, while his soldiers were celebrating the religious fête of the Assumption of the Blessed Virgin;—who subsequently hung a whole garrison of Christians in France, even after they had offered to surrender, and soon after died of a wound in the castle of Chalon, after a nominal reign of ten years over England as its monarch, though he had never spent a single year of all these ten within his own dominions; a man characterized by the three great vices of 'pride, avarice, and voluptuousness,' and whose whole life was a career of blood and murder! Such are the men whom our chief nobility have met and subscribed largely (to the extent of several thousand pounds) to honour—700 years after his ignominious death—by setting up his statue in the capital of their own country, where thousands are pining in want, ignorance, intemperance, prostitution, and profligacy and crime, for which it is difficult to raise funds to carry forward the necessary agencies for their reformation! If we needed more statues for the adornment of the metropolis, in addition to those of the kings, princes, dukes, admirals, and generals, which form the majority of the present number; and especially if we wished such statues to commemorate an Exhibition intended to promote 'peace and good will among men;' we might surely make a better choice than this of 'Cœur de Lion,' as we have yet no public statue in any of our squares or parks to our most successful navigator, Cook—our most adventurous traveller, Bruce—our purest founders of colonies, Oglethorpe and Penn—our greatest astronomer, Newton—our chief philanthropists, Howard, Clarkson, and Wilberforce—not one of our loftiest and most religious poets, Milton and Young—our most uncorrupted patriots, Marvell, Sidney, and Hampden—our most philosophic statesman and orator, Burke—or our great social reformers, Lord Ashley and Father Mathew—each of whom are worth a hundred 'Cœur de Lions' for their own merits and deeds, and still more for the beneficial examples of their lives, patterns worthy of exciting the emulation and imitation of mankind, and having much more in harmony with the Great Exhibition of the Temple of Peace, than the ferocious blood-spiller, who had no greater virtue than that of the brute beast whose name is incorporated with his own; as if to be 'lion-hearted'—of which millions are to be found among the most ignorant and vicious of mankind—was to possess all the virtues that could elevate and adorn humanity, and like charity, 'cover a multitude of sins.' Alas! for the wisdom of the nineteenth century!"

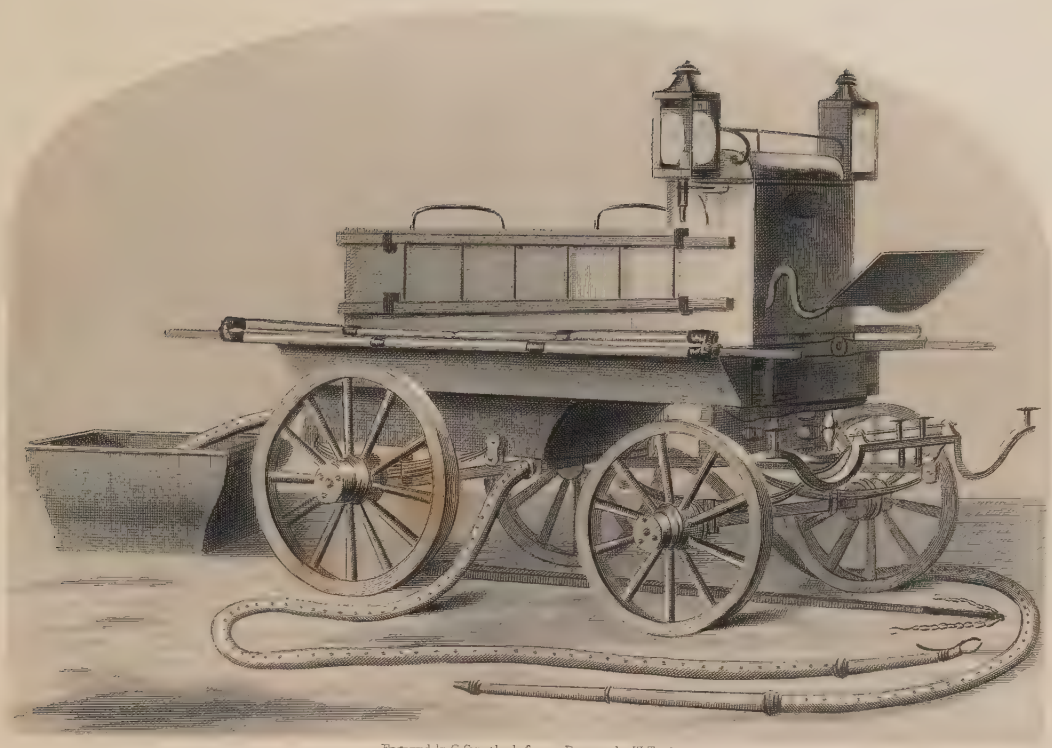
To this we may add, that if we must have a crowned potentate of bye-gone times, surely the annals of our history afford us a better subject in king Alfred, one of the most amiable and enlightened monarchs that ever sat upon a throne, the glory of our Saxon race, and one who was designated, even by Voltaire himself, who never can be suspected of partiality in our behalf, as the most perfect pattern of royalty, and the most exemplary king ever recorded in the page of history.

CHAPTER III.

MACHINERY.

CANADIAN FIRE-ENGINE—FRENCH FIRE-ENGINES—ENGLISH FIRE-ENGINES—INJECTING APPARATUS FOR PRESERVING WOOD—PROCESS OF INJECTION DESCRIBED—DR. BOUCHERIE'S PLAN—AGRICULTURAL MACHINES.

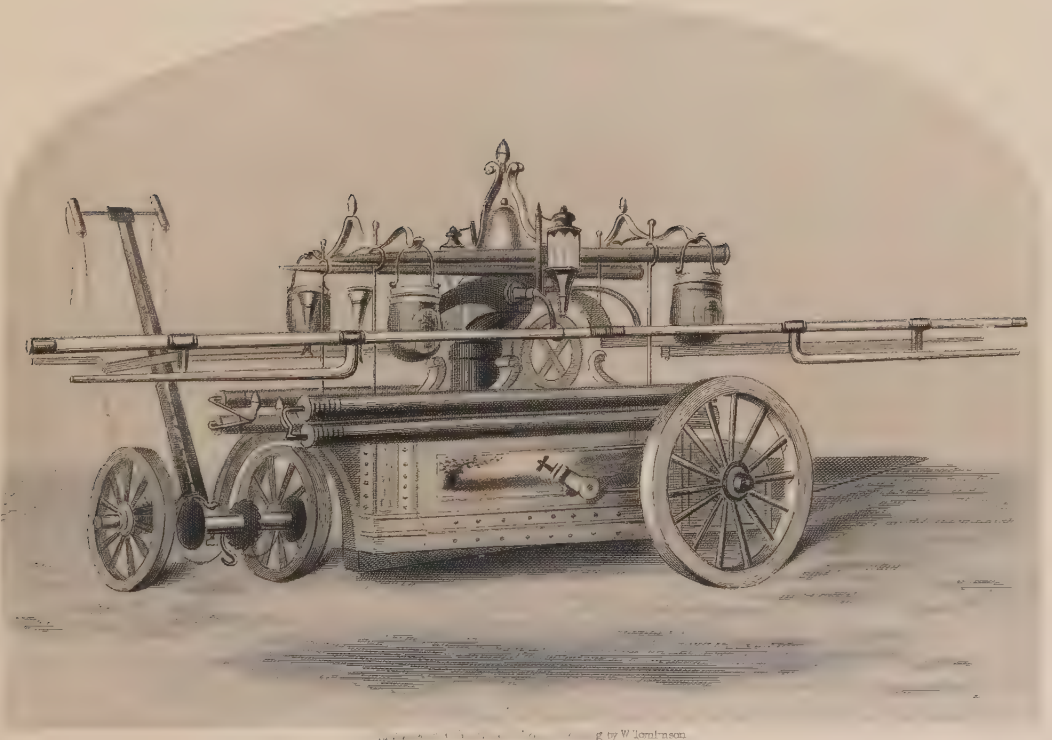
Although we have not heretofore devoted an entire chapter to "Machinery," still we have on several occasions made mention of some of those most astonishing productions of human ingenuity and contrivance which were so profusely displayed within the capacious walls of the Crystal Palace. "Ample space and verge enough" was there for all that was offered to the public admiration; and well did science and skill respond to the call that was made upon them. The majestic locomotives, the giants of the Railway, we have already had under consideration. We now propose to examine a few other specimens of machinery which the manifold requirements of civilisation have elicited from the inventive genius of mankind.—And first with respect to fire-engines. In the Canadian apartment a fire-engine was exhibited, built by Messrs. Perry of Montreal, which merited especial notice and commendation. Unlike the fire-engines of this country, it worked transversely, instead of horizontally. It was also said to combine, with lightness and neatness, greater power than any similar engine in Europe, whilst the simplicity of its construction enabled it to be worked with fewer men and more ease. It was also equally suitable for hot or cold climates, as these extremes meet in Canada. These were, by the builder, said to be the principal merits of the engine, though its capabilities have been, as yet, but partially tested; estimating these, however, by other engines built on a similar principle, and at work in Canada, the following are considered to be within its range:—with a cylinder of seven inches and a stroke of sixteen, it will lift a supply of water thirty feet, and playing from the extremity of a fifty-feet hose, it will send a jet from a one-inch nosel from 170 to 180 feet vertically, and 210 feet horizontally, or it will send two streams each 150 feet vertically, and 170 feet horizontally. In the building of the engine exhibited, every evidence of care had been bestowed, as it was generally understood in Canada that it was the intention of the Fire Engine Company in Baltimore, United States, to have sent their engine, which is of the same dimensions, and cost above one thousand pounds, to be exhibited at the world's fair. In a spirit of generous rivalry, the Montreal commissioners connected with the Exhibition came forward to support the Messrs. Perry in their determination of sending their engine; and it is a subject of regret to the Canadians that the United States should have held back from the competition. But notwithstanding the merits which the engine might possess, the gaiety of its appearance, we think, in some measure, tended to impress the mind with an idea of its unfitness to bear the wear and tear of engines of British construction. This, however, does not in the slightest degree affect the principle upon which it is built; that must remain the same, whether good or bad. Perhaps the desire to catch the eye had something to do in influencing the makers. But be this as it may, we are all aware that the practical mind of England is apt to be offended rather than pleased with anything that trenches upon the province of the *toy* manufacturer in regard to a machine of so momentous a character as a fire-engine. It must, however, be remembered that in Canada the fire-engines are the property of different volunteer companies, composed, in the various towns, of young men, among whom great rivalry exists. Trials of the merits of their respective engines are so frequent as to be with them a sort of relaxation and amusement, whilst in all *fêtes* and



Engraved by G. Greatbach, from a Drawing by W. Tomlinson

LONDON BRIGADE FIRE-ENGINE "PRINCE ALBERT"

MANUFACTURED BY MERRYWEATHER



g. by W. Tomlinson

CANADIAN FIRE-EN

processions they take a prominent part, and by the splendour of the banners they display on such occasions, added to the diversity of their costumes, greatly enhance the life and spirit of the scene. The engine before us was adorned with paintings of the principal edifices in Montreal, an east and a west view of the town, and others of minor description, which were not inappropriate. The French exhibited two or three fire-engines which had little pretensions to engineering skill, but were marked by that light, convenient elegance which usually distinguish their contrivances. They had no pretensions to contest the palm with Canada or England in this department, but would seem to have taken their position rather as pieces of simple portable ingenuity than of skilful mechanical construction. In one of the British machine compartments, several fire-engines appeared from the manufactory of Mr. Merryweather, Long-acre. Amongst the rest was one of an exceedingly ingenious and useful description for the suppression of fires in dwelling-houses. This was called a *cabinet* fire-engine; and notwithstanding the different forms which fire-engines have been made to assume since their first invention (about two hundred years ago), the appearance of this showed that variety is not yet exhausted. This engine was produced at the request of the Duke of Norfolk, and was one of the most compact and efficient ever constructed. In outward appearance it resembled a small cabinet upon castors; and upon removing the mahogany top, a complete fire-engine was discovered, worked by a folding handle, with an apparatus capable of being rendered available at a moment's notice. The strength of one woman was sufficient to work it, and the whole did not occupy a space exceeding thirty square inches. Mr. Merryweather also exhibited his London brigade fire-engine, which is dignified with the cognomen of "Prince Albert;" also a farmer's fire-engine, a branch pipe of which was furnished with a *spreader*, by means of which the water can be thrown over a large surface—an invaluable appendage in the event of fire in corn or hay-stacks, weather-boarded buildings, and such like. This machine was also exceedingly portable, being easily capable of conveyance from place to place by one man. It had, moreover, the advantage of being so simple in its construction as to be understood at a glance, and managed by any person of ordinary capacity.

Such is a brief but necessary notice of the fire-engines exhibited in the Crystal Palace; and whilst we can bestow a well-merited compliment upon the Canadian production, we cannot shut our eyes to what appeared to us as a fault, being evidently too unsubstantial for the rapid and severe duties which such engines are so frequently called upon to perform.

Injecting Apparatus for the Preservation of Wood.—We have already briefly referred to the various specimens of timber, forming the Canadian trophy. Many loads of Canadian timber were used in the construction of the Crystal Palace; and we find, from official returns, that no less than 1,060,000 loads of Canadian timber were used in this country in the year 1850. If to this we add the timber imported from Norway, Sweden, Russia, &c., forming what is called the Baltic timber, we get an aggregate amount of nearly 1,700,000 loads of timber, actually applied to various purposes in one year, in addition to 80,000 loads of staves used in the manufacture of casks, &c. The value of this timber and staves is not short of £5,000,000. We have, unfortunately, no means of correctly ascertaining either the quantity or value of the oak, ash, elm, beech, fir, larch, poplar, and other wood, the produce of our own soil, used in a year; but this cannot be less in value than £2,000,000. We thus get a grand total value of £7,000,000 spent for timber in one year. Now, continued supplies of wood are required not only for the construction of new buildings, railways, bridges, ships, &c., but also to replace that which has rotted and decayed. This rotting and decaying of wood is a source of considerable expense, as we have not only the cost of new wood to provide for, but the expense of taking up the

decayed, and substituting sound timber in its place. Various plans have, from time to time, been adopted with the view of preventing the great loss thus sustained. Some of these processes we will mention, inasmuch as they were practically illustrated by specimens exhibited; but, before doing so, it may be as well to say a few words on the cause of this rotting and decay of wood, and the principle on which the remedy is founded. All wood contains what is called albumen, an essential ingredient in vegetable bodies, entering largely into the composition of the sap, or what we may term the life-blood of the tree, which circulates through the system. As long as this albumen is supplied with sufficient moisture to retain it in a soluble condition, so long will it be liable to enter into a kind of fermentation, especially if placed in damp or ill-ventilated situations, and often even where the ventilation is perfect, and the atmosphere in its ordinary state of humidity. If a piece of green timber—that is, timber recently felled, and therefore containing this albumen in a perfect state of solution, in the moisture of the wood—be employed in the construction of a house, the albumen undergoes fermentation, and the rot and decay of the wood speedily follows. The fermented albumen affords a food highly relished by a certain class of microscopic insects, whose keen perception soon leads them to find out its presence. These penetrate the wood in all directions, in search of this food; and, in so doing, make innumerable small crevices in the wood, through which air and moisture enter. These combine with the nitrogen of the fermenting albumen, and cause a formation of an ammonia and its compounds, which favours the growth of the seeds of numerous microscopic plants, which are ever floating in the air, seeking a suitable resting-place where they may fulfil the functions assigned them of continued increase. The minute plants which spring up from these seeds, in their endeavours to reach the light, push their way through the fibres of the softened wood, until at last, by the combined agency of animal and vegetable life, the timber rots, crumbles away, and becomes unfit for further use either in buildings or utensils.

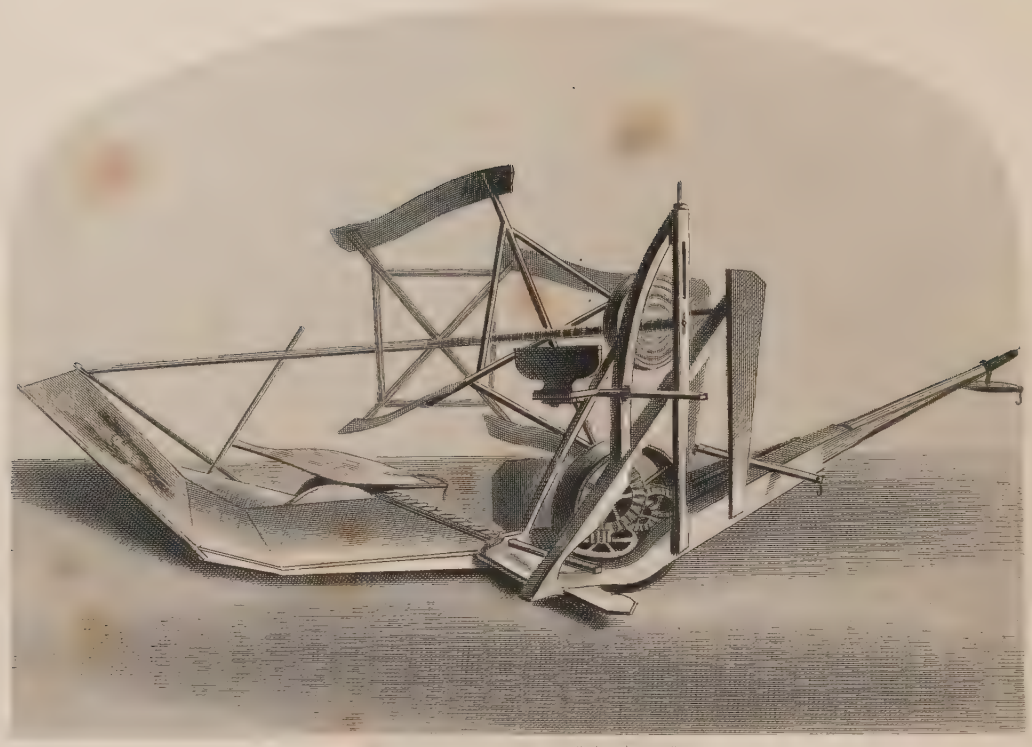
How is this waste and destruction of wood to be prevented? To a certain extent by thoroughly drying the timber in a current of air. This, however, takes considerable time to effect: for instance, a large piece of oak requires exposure for eight or ten years to dry it completely. This is demonstrated by the fact that it continues to lose weight for that period. We may apply heat to hasten the process of drying; but the wood, when exposed to the ordinary temperature of the atmosphere, absorbs moisture in quantity varying with the compactness of the wood. In a dry room, without a fire, the quantity of water re-absorbed by wood amounts, on an average, to ten per cent. As long as the albumen of the wood is supplied with sufficient moisture to render it soluble, so long will there be danger of dry-rot. The best plan, therefore, to adopt is, to render this albumen permanently insoluble, so that, however much moisture shall be absorbed, it cannot be brought into an active state again. For this purpose, Sir H. Davy recommended that the wood should be steeped in a solution of corrosive sublimate, a salt called bichloride of mercury by chemists, which has the property of forming an insoluble compound with the albumen, and thus preventing its further action. This process was commercially applied by Mr. Ryan; but from the expensiveness of the preparation, and the fear that the use of this poisonous salt might prove deleterious to the health of sailors inclosed within their wooden walls, as well as to persons residing in houses filled up with this prepared timber, the employment of corrosive sublimate has been abandoned. In Class IV., Mr. Bethell exhibited some specimens of timber, saturated with the creosote oil, obtained from wood and coal-tar. This is a very powerful preservative; but possesses the disadvantage of imparting a disagreeable odour, and increased inflammability to the wood. Mr. Payne exhibited specimens, prepared first by injecting a soluble salt of baryta into the pores of the wood, and then adding solution of sulphate of iron; by this means a

grooved worm cut on their faces by machinery, in which the ends of the breasting-bars move. This arrangement allows the breasting-bars to separate wider from each other, as well as more distant from the drum, and thus gives the larger corn (beans, peas, &c.) a wider space through which to escape when thrashed. This plan is admirably adapted to the various grains to be thrashed, and at the same time it is so simple, that it is not likely to get out of order. The patent machines thrash barley and all sorts of grain perfectly; they work with great ease; and, should any accident arise, by which a bar of the breast-work is bent or injured, it can be taken out and straightened by the men at the work without much loss of time. There were also several three and four-horse, and steam-power machines, made up very strongly, and fitted with combined wood, iron, and wire-breasting, giving the most approved thrashing surface. The drums were of wrought-iron, with wood beaters, iron-faced, and they were in all respects as well made and correct in their arrangements as any that are manufactured. The whole of the machinery connected with the machine was enclosed in a cast-iron cylinder, with a movable cap, revolving, when at work, on its upper surface. On the inner edge of the cylinder were a set of cogs, which worked into three loose wheels, and communicated the motion to a pinion on an upright shaft in the centre, on the bottom of which was fastened a bevil-wheel, working into a pinion which communicated the power to the outside, giving 33 revolutions for each circuit of the horse; so that if the horse travels round three times in a minute, 99 revolutions are given per minute to the lay-shaft. One of the chief peculiarities of this machine is its safety. Nothing can gain admittance into the cylinder, unless purposely placed there—it being as much enclosed as a watch.

We shall next notice *The Haymaking-machine,* which obtained a prize in the Great Exhibition. It had two motions—one for tedding or spreading the grass, &c.; and the other for lightly turning the hay when nearly made. The accomplishment of the reversing or forward action was obtained by a simple short lever, on the end of which were fixed the two pinion-wheels which impart the rotary motion to the flyers. The lever was set for the different motions by means of a thumb-screw, fitting into three recesses on the side of the wheel-box.

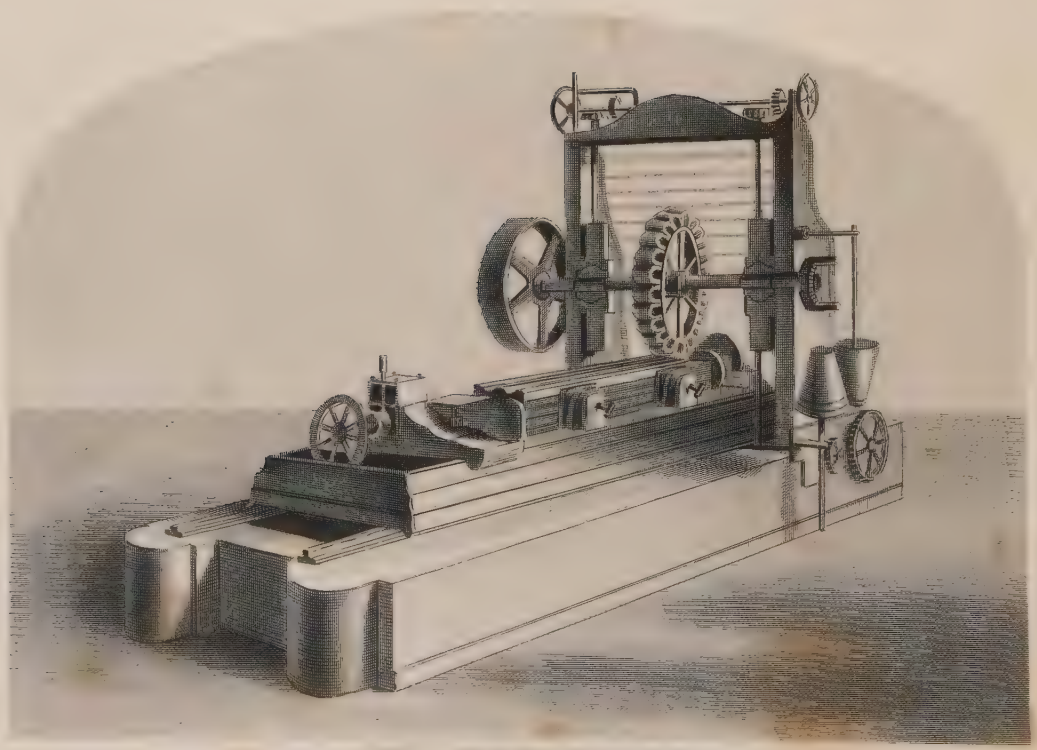
Boyd's Patent Double-Action Self-Adjusting Scythe was an extremely clever contrivance, possessing many advantages over the old-fashioned, dangerous, and ill-contrived implement, which has hitherto remained in the same normal state as when old Time first employed it. It was contrived to be put together without the assistance of a blacksmith or forge. The blade or handle might be adjusted to any angle at the will of the operator, enabling him to cut either field or lawn grass, without change of scythes, and also permitting him to cut from one to six inches from the root of the grass or grain, either in an inclined or upright position of the body. The blade might also be adjusted to cut a breadth of about two feet per stroke over the old scythe, effecting a saving of twenty-five per cent. in labour. Perfectly portable, and free from the danger attending those of the present day, it might be shut up like a knife, and carried or stowed away as easily and safely as any ordinary garden implement. Its utility to emigrants can be well imagined, when it is considered that sometimes a settler may have to send 50 or 100 miles to the nearest smithy to get the ordinary scythe set; and, perhaps, when so done, it may have to be returned more than once for alteration to the required angle. The blade, handle, &c., in this double-action scythe, are, moreover, firmly fixed without the assistance of blacksmith or wedges.

Messrs. Ransomes and May exhibited an improvement on *Biddel's Scarifier*—an instrument invented about thirty years ago, and successfully used to clean wheat, bean, and pea stubbles directly after harvest; to break up such parts of clover layers as may have failed in the plant; and to break up land after green crops, in May or June, in preparation for



REAPING MACHINE

CORMICK NEW YORK



turnips, coleworts, &c.; thus accomplishing fine and deep tillage, without bringing fresh earth to the surface-land, in preparation for barley and oats. The improvements upon this scarifier consisted in manufacturing it almost entirely of wrought-iron, and suspending the frame so that by means of a lever at each end, and corresponding catches, either side may be raised higher than the other, to suit sloping ground, or to allow one wheel to run in a furrow whilst the teeth penetrate the cultivated ground to a uniform depth. The teeth were also of wrought-iron, and were secured to the frame in such a manner as to allow of varying both their distances from each other, and the depth to which they are to penetrate, allowing also of setting them to suit surrounding lands. This instrument is said to effect a saving of time and tillage, improved cultivation, and involves a less expense in harrowing than under the general methods. The instrument obtained prizes at various agricultural meetings as well as at the Great Exhibition.

The Circular Saw-Bench and Hurdle-making Machine. — An ingeniously-contrived machine, invented by Mr. C. Burrell, of Thetford, Norfolk, was exhibited in Class IX., and was deserving of close inspection. It consisted of two parts. On one side was a saw-bench, with a circular saw to cut out the rails and bars. It had a bar with a parallel motion to guide the wood to the saw, and to gauge it to the proper thickness. On the other side were five boring-bits, set at any required distances, and fixed on the axes of cog-wheels, that are made to revolve by means of a pulley and driving-wheel. The rails to be morticed are placed in a long box in front of the boring-bits, and firmly held in the box by means of a clamp at the end. This box is made to slide forward by means of a lever, and a quadrant pinion and rack-motion attached to each end. When the lever is pulled towards the attendant, it moves the box with the rail close up to the boring-bits, which, upon being set in motion, instantly bore five holes through the rail. The box with the rail is then made to move sideways, when five other holes are cut through the same rail. The rail is then gradually moved back again, and the bits revolving cut out the intervening wood left between the two holes, and perfect the mortices. The edges of the bars are then cut with the machine, and they are ready for making hurdles.

The first place, however, among the agricultural machinery that was exhibited in the Crystal Palace, must be ceded to our Transatlantic cousins. In evidence of which we shall give a short account of M'Cormick's Reaping Machine, which has, for many years, been in constant use in all the wheat-growing districts of the United States; and, although numerous attempts have been made to introduce machines of a different construction, they have failed in every case—this possessing so many and great advantages over its competitors, not only in its manner of cutting, but also in the state in which it leaves the grain after it is cut. As a labour-saving machine, it has proved itself an invaluable aid to the already large number of agricultural implements in America; for, without its aid, it would be impossible to gather the crops of the western states. Why it has never before been brought under the notice of English farmers is strange, especially when, as is often the case, labourers have been so scarce. On trial in this country, it was perfectly successful; and so well were the jury, under whom it was tried, pleased that they awarded it the great gold medal. The machine has since been making a most successful tour throughout the various counties of England, succeeding everywhere to admiration. We may also add, that the cost of it places it within the reach of all who are engaged in farming operations.

Messrs. Ransomes and May, of Ipswich, contributed some very excellent specimens of their manufacture. A plough for two-horse draught, was especially deserving of notice. At the trial at Southampton it was shown that, by simply changing the mould-board, it would answer equally well for heavy or for light land; and, upon that occasion, it obtained the double prize of the Royal Agricultural Society. Several other ploughs

exhibited were also of a character to sustain the well-known reputation of this eminent firm, many of which had obtained premiums at the meetings of the Royal Agricultural Society in various parts of the country. The same firm also exhibited a corn and seed-dropping machine, for the purpose of depositing seed-corn similar to hand-dibbling, at equal distances, which it accomplishes with unerring precision, in seams made by coulters, which precede the depositors. A portable steam-engine, for thrashing, and other agricultural purposes, was deserving of commendation; as were also a cane-top cutting-machine, much employed in the West Indies, a patent straw-cutter, and a chicory-cutter; which latter machine excited considerable attention—consequent, perhaps, on the late excitement in the coffee trade. Croskill's patent clod-crushing roller elicited attention among the admiring *Palemons*, whom the fame of the Great Exhibition drew from their rural retreats, as did also various turnip-cutters, oat-mills, crushing-mills, oil-cake breakers, grass-plat cutters, hay-making machines, ploughs, harrows, rakes, hoes, &c., "*Quæ nunc describere longum est*," which this very interesting collection contained. Suffice it that they were each excellent in their several capacities. A one-horse harvest-cart was quite classical in form, and appeared well adapted for carrying large loads from the harvest-fields. It was made very light in weight, and, from the best materials being used, and good workmanship, was strong, and could be more readily loaded than the wagons in ordinary use. The contributions of Messrs. Ransomes and May were honoured by the jury with their special approval, and several medals were awarded to the firm.

CHAPTER IV.

FOUNTAINS.

ANCIENT FOUNTAINS—FOUNTAINS IN FOREIGN CITIES—PARIS—ROME—THE CRYSTAL FOUNTAIN—IRON FOUNTAIN, BY THE COLEBROOK-DALE COMPANY—FOUNTAIN IN IRON, BY ANDRE—FOUNTAIN IN TERRA-COTTA—FOUNTAIN BY THOMAS; ACIS AND GALATEA—FOUNTAIN FOR A MARKET-PLACE—KALLIDE'S FOUNTAIN; BOY AND SWAN—BRONZE FOUNTAIN, BY JABEZ JAMES, ETC.

Few objects in nature are more delightful than fountains; charming the eye, soothing the ear, and offering ready refreshment to the weary traveller. No wonder that they were early sanctified by religion, and eulogised by the poet, as in that sweetest of the odes of Horace—

> "O fons Blandusiæ, splendidior vitro,
> Dulce digne mero, non sine floribus," &c.

Most of the ancient Greek cities, Corinth in particular, were adorned with artificial fountains; and, at Pompeii, many are still remaining nearly perfect—they there appear to have been as much used for ornament and luxury in private houses, as for utility in the streets and public roads; and it is easy to trace in them how well the property of water to rise to its level, and the law by which fluids may be made to ascend in a vertical jet to a height proportionate to the pressure which acts upon them, was understood at the time of their erection. Perhaps no city in the world is at this time so lavishly supplied with fountains as modern Rome, though, probably, even her present abundance is not a tithe of what she had to boast of in her more "high and palmy state" under the first emperors. Throughout Italy, indeed, the passion for fountains has called forth the utmost elegance and ingenuity of fancy in their construction and their

Engraved by H. Bibby, from a Daguerreotype by Mayall.

SOUTH TRANSEPT, GREAT EXHIBITION.

ornaments—they form one of the chief features of attraction in every city; nor scarcely is the humblest village left without some attempt at one which forms a favourite spot for resort; and whilst the imagination is delighted with the sculptures and inscriptions they may display, the feelings of benevolence are gratified by the thought of their utility. It must be confessed, that, as has been justly remarked in the *Builder*, "in order to obtain a correct idea of what a fountain should be, it is absolutely requisite to cross the Channel, and visit some of the continental cities. In England, we have nothing that will convey the same notion: with all respect for the works of our countrymen, we are compelled to acknowledge, that the fountains at Chatsworth, Trafalgar-square, &c., are very inferior to those at Versailles, St. Cloud, or even those smaller celebrities in the Place de la Concorde, at Paris. And the same comparison will hold good with regard to works of lesser note. With us, if water is required in public places for the general use, it is supplied by means of exceedingly ugly iron pumps; while on the continent, the same beneficial result is arrived at by more ornamental means. In the markets, and other convenient places, conduits are erected, from which water is continually flowing, and is to be procured with very little labour. In no place are they to be more frequently met with than in Rouen. It is said, that previous to the revolution of 1792, there was a fountain near every church; and at the present time they are not less than thirty-seven in number; seven of which, viz., that of the Croix de Pierre, the Crosse, the Grosse Horloge, the Vieux Marché, the Pucelle, St. Maclou, and Liseux, deserve particular notice—some, on account of their architectural merit; others, for the historical recollections connected with them."

Fountains, indeed, are the first objects that strike the fancy of a real English traveller in his first visits to the continent. "I miss the fountains," said a friend of our own on his return from Spain—a real John Bull in valuing his own country above all others: and we could sympathise in his feeling; for we also have often wished to see London adorned with such a mass of splendid architecture and such a sonorous fall of many waters as the fountain of Trevi displays in the Eternal City, or, as the Fontana Paolina, with its magnificent Ionic columns; nor have we ever looked upon the sea-horses in the Piazza di Navona, or the figure of Neptune with his trident, or his attendant Tritons blowing their shells, or any other emblem of the deep, without thinking how much more appropriately they might be introduced as appendages to fountains in the metropolis of our own sea-girt isle, the flag of which waves triumphant on every coast in the habitable globe. But leaving out all these fanciful illustrations, how grand and simple are the beautiful fountains in the middle of the Piazza di San Pietro, throwing their glittering bodies of water into the air, to descend like showers of precious stones into basins of oriental granite, fifty feet in circumference—but we must not let our subject lead us beyond our limits. It is time, moreover, to speak of the specimens of fountains that were presented to the public in the Great Exhibition, the most prominent among which, and the most worthy of notice was unquestionably—

THE CRYSTAL FOUNTAIN,

which noble object, although we have already, in an earlier portion of this work, given a brief description of it, we shall again introduce to the notice of our readers, now that we are expressly devoting a chapter to the subject, and of which it, indeed, constitutes so essential a feature. And here we cannot do better than quote the following remarks of Mr. Digby Wyatt, in his elegant work on the *Industrial Arts of the Nineteenth Century*:—"Those," he observes, "upon whose memories the first sight of the glorious transept of the Great Exhibition has stamped a clear and lasting image, cannot fail to remember that striking object which formed so conspicuous a feature in the middle ground of the picture then presented to their view."

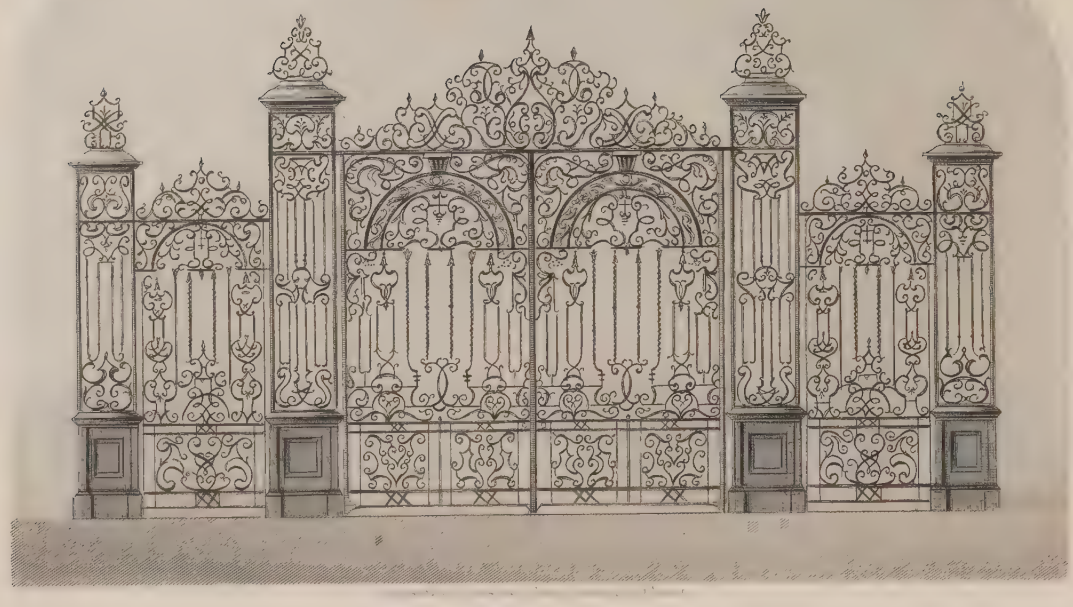
It would be difficult to imagine a central ornament more appropriate for a palace of glass than a crystal fountain; and there is no doubt, that as a striking novelty in the application of the material, and as a pleasing and graceful object in itself, it must, in a pre-eminent degree, have excited the interest and admiration of the foreign visitors, who responded to the invitation accorded to them on the occasion of the first Exhibition of All Nations. Never before had a piece of glass-work been executed, involving the treatment (in casting, cutting, and polishing) of blocks of glass of a size so large and of a purity so uniformly faultless. The firm by whose exertions this superb object was produced, were already favourably known to the public by the taste which has always characterised their ordinary trade-productions. Having been led, some years ago, to execute a splendid candelabrum in glass, for the late Pacha of Egypt, the Messrs. Osler acquired, in the course of its formation, such an amount of practical dexterity, as induced them to undertake, with confidence, the preparation of a still more magnificent ornament of a similar nature, twenty feet in height, expressly as a contribution to the Birmingham Exhibition, held at Bingley-house, in 1849. This latter work was purchased by the Nepaulese ambassador.

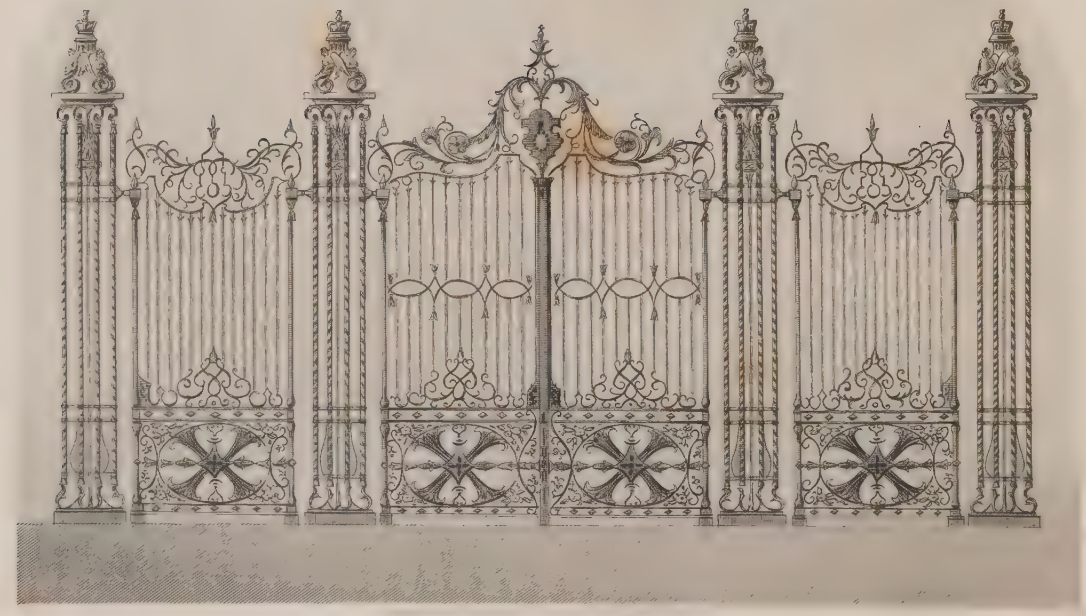
Excited by the admiration universally elicited by these productions, the Messrs. Osler determined that their chief contribution to the Exhibition of All Nations should far surpass their previous attempts. Mr. Follett Osler has communicated to Mr. Hunt's *Hand-Book to the Great Exhibition,* an interesting account of the difficulties which presented themselves in the course of executing the Crystal Fountain; and as we feel ourselves unable to describe in language more graphic than that gentleman has employed, we take the liberty of adopting his words:—"The experience gained in making the candelabra for Egypt has been of considerable use to us in making the great fountain; though the difficulties attendant on the latter work were far beyond what we anticipated when we first entertained the idea of its construction. Indeed, for some time it progressed so slowly, that we feared we should be obliged to abandon the undertaking. First, the moulding of such a large piece of glass is very troublesome and difficult, and the waste very considerable. The annealing also is very hazardous. If the kiln in which this process takes place is at all too hot, the work is bent out of form by its own weight; and if too cool, fracture is certain to take place, either immediately, or during the process of cutting—that is, grinding and polishing. This annealing, or cooling process, occupies a space of from six to seven days; and, as only a comparatively small portion of the whole can be made at once, much time is consumed. Such parts as have stood the moulding and annealing have next to be submitted to grinding: and here much additional risk is incurred; for every part is richly cut all over. Upwards of four tons of crystal-glass were used in the construction of the fountain now in the transept of the Exhibition. The principal dish is upwards of eight feet in diameter, and weighed, before cutting, nearly a ton. The shells round the base weighed nearly fifty pounds each previous to cutting. The public can really form no conception of the labour and troubles to be gone through in producing this work, though I think the glass-trade must be pretty sensible of it. After all, there is not only the glass, but the construction and engineering difficulties, if I may so call them, to be overcome. We have had the best advice and assistance of Mr. Barry, who has taken a great interest in the work, and he has aided us with his valuable advice. We look to this rich and massive style of work as opening a new feature in the trade, a smaller sample of which (a pair of candelabra) may be seen in our case in the gallery. These were executed by command of his Royal Highness Prince Albert, and were presented by him to her Majesty, on her birth-day, in 1849, and are placed in the drawing-room at Osborne. They are upwards of eight feet in height, and carry fifteen lights each." The glass produced by Messrs. Osler is remarkable for its extreme purity and brilliancy;

IRON FOUNTAIN.

A[illegible]NDRÉ, VAL D'OSNE, FRANCE.

[illegible]GAR'S EARTHENWARE FOUNTAIN.





and when it is considered how fine are the proportions in which the various elements which constitute perfection in glass-manufacture require to be combined, and how the slightest impurities entail the gravest defects, it is not easy to realise to the imagination the amount of thought, study, and attention which the Messrs. Osler must have devoted to the production of this beautiful and extraordinary work.

Fountain and Ornamental Gates in Cast Iron, by the Colebrook-Dale Company.—From the glass we turn to the iron-founder, for he also had his fountain in the Great Exhibition; and, although it could not compete with the beautiful work we have just been eulogising, still it was a work which displayed the high degree of perfection which English manufacturers have attained in the present day, in the production of exceedingly large castings, of perfect precision of form, and homogeneity of texture. The accomplished and elegant writer whose opinions we have already quoted in our account of the crystal fountain, takes occasion, in the following passage, to bestow his meed of approbation upon the company which enriched, in so varied a manner, the numerous departments of the Great Exhibition:—"The point of view in which we must especially take occasion to commend the Colebrook-Dale Company, is in reference to the energy and liberality with which they seek to employ and reward the highest class of artists. The beauty of such productions as this Fountain, the Eagle-Slayer, and other works of a similar class, do credit alike to Mr. Bell, the sculptor, and to the company. We cannot but regard them as the beginning of a very important branch of industry; and so soon as scientific chemists shall have discovered a material which, superseding paint, shall effectually protect iron from oxydation, without destroying the perfection of its surface, or the sharpness of its angles, we have no doubt it will be very largely employed in the formation of objects of the highest class of art."

Fountain in Iron, by André, of Paris.—In the last French Exposition, M. André exhibited the elegant fountain in iron which subsequently attracted so much admiration in the Great Exhibition of All Nations. "Whilst there is much," says Mr. Digby Wyatt, in his beautiful work already cited, "in the design and execution of this fountain, it may still be remarked, that in common with most other works in metal of the present day, its ornaments are deficient in those peculiarities of style proper to the material. This defect probably arises from the circumstance that the patterns for iron-casting are made by wood-carvers; and thus we find that panels, eminently suggestive of joinery, and foliage and fruits, which might appropriately decorate cabinet-work, too frequently constitute the staple material of important designs carried out in iron. In the balcony-railings and open-work door-panels used in the modern street-architecture of Paris, the principle of lightness is admirably expressed; and even though painted in the most manifest stone-colour, the eye at once detects in them the peculiarity of the material." The iron-founder is much indebted to the exertions of M. Calla, who has executed a number of admirable works in the Palais Royal, the Tuileries, &c., &c., among which the colossal statues which adorn the beautiful fountain in the Place de Richelieu, attest at once his skill as a founder and the applicability of the material to such monuments.

Fountain in Terra-Cotta.—Berlin has long been celebrated for the excellence of its productions in terra-cotta. A signal evidence of the skill of the Prussian artist in that branch of art was the terra-cotta fountain contributed to the Great Exhibition by Mrs. Marsh, of Berlin, which, while it admirably illustrated the perfection of the manufacture, at the same time displayed a pleasing taste in composition, and great freedom and excellence in modelling. It was sent from the artist's manufactory at Charlottensburgh, in which are employed some of the most promising artists of Germany. As a tasteful ornament, suitable for a park or garden, this fountain would be very appropriate, and from the nature of the material could be erected at a small cost.

Fountain by Mr. Thomas.—This was a very elegant structure. Four emblematical figures served to throw up the water, while, in the centre, stood the exquisitely-carved figures representing Acis and Galatea. We all recollect the story as it is told by Ovid (*Metamorphosis,* xiii., verse 789), how the sea-nymph was beloved by the Cyclops, Polyphemus, whom she treated with coldness and disdain, while she bestowed her warm-heart affection on Acis, a shepherd of Sicily; how the happiness of the two lovers was destroyed by the envious jealousy of the one-eyed monster, who, in order to rid himself of his rival, destroyed him, as he sat with Galatea at the foot of a rock by the sea-side, by hurling on his devoted head a huge mass of stone torn from the surface of the mountain; and how Galatea, inconsolable for the loss of her lover, and finding that she could not restore him to life, changed him into a fountain; while she herself was metamorphosed by the gods into a stream, the office of which was to supply its fountain lover. Virgil also tells us the same story in the *Æneid.* Few subjects in the whole range of classic lore have been more attractive to the poet, the painter, or the musician, than this of Acis and Galatea. Witness the charming songs of Gay, the rich and varied harmonies of Handel, and the magnificent landscape by Nicolo Poussin, certainly the most grand and romantic one that ever issued from a poet's imagination.

We next turn to *A Fountain for a Market-place,* by Mr. John Seeley, of the New Road, which for nobility of form, grace of outline, and entire adaptability of purpose, was entitled to the highest commendation. It stood in the western nave, a situation by no means suitable to display it to advantage, as there was not space sufficient for the magnificent *jets d'eaux* it was capable of sending forth. It was designed by Mr. Papworth, of Great Marlborough-street, and was constructed of artificial stone. Of M. Kallide's *Fountain; Boy and Swan*—executed in marble for the King of Prussia, and cast in zinc by Messrs. Geiss, of Berlin, we cannot speak with much commendation. Let us pass on, then, to a small *Fountain in bronze,* by Jabez James, and pause awhile to admire the richness of its ornaments, its dolphins, and sea-monsters, and its presiding figure of "the stern god of the sea." This little fountain was well adapted for the decoration of a summer-house or a cottage verandah.

An Earthen-ware Fountain, by Ridgway, was also worthy of notice, as well as a fountain by Freen Roe and Haman, which stood in the north transept. But it is time to conclude our chapter, and to take leave of these agreeable objects—these fountains—

> "———— That warble, as they flow,
> Melodious murmurs."

CHAPTER XV.

HOROLOGY.

EARLY MODES OF MEASURING TIME—THE SUN-DIAL, ANTIQUITY OF—THE CLEPSYDRA—THE HOUR-GLASS—WHEEL-CLOCKS—CHIMING-CLOCKS FIRST KNOWN IN ITALY—MENTIONED BY DANTE—STRASBURG AND LYONS CATHEDRAL CLOCKS—HAMPTON-COURT CLOCK—DR. HENDERSON'S CLOCK—ELIZABETHAN CLOCK—CHIMING SKELETON-CLOCK—TIME-PIECE, BY LOVEJOY—CLOCK BY VITTOZ—ASTRONOMICAL CLOCK—ELECTRIC CLOCK—CLOCK BY FRANCIS, ETC., ETC.

We have already made some remarks upon the subject of Horology, and given a brief explanation of the principal technical terms relative to the different pieces of mecha-

BY T. W. PAPWORTH

CAST IN ZINC BY THE VIEILLE MONTAGNE

nism employed in the construction of instruments for the measurement of time, from the ponderous church-clock, like that of St. Dunstan's, with its attendant giants, Gog and Magog, starting forth at the appointed moment to strike the hours with their ponderous hammers, to the fairy jewel that may be made to adorn a lady's finger in a ring; or, minuter still, to be enclosed in the end of a pencil-case, for the special benefit of the punctual, when they are making their memoranda, as exhibited by Mr. Elfroth, whose ingenuity was rewarded with "honourable mention;" or, most minute of all, those Lilliputian time-keepers, the production of M.M. Patek and Philippe, only the thirty-fifth part of an inch in diameter.

It may safely be assumed, that the earliest, as it was the simplest mode of measuring time, was by the direction and length of the shadow cast by the sun; hence the origin of the dial, which is supposed to have been invented by the Babylonians, and from them received by the Egyptians and Chinese, as, at a later period, also, by the Greeks and Romans: but it was certainly familiar among the Jews long before it was known to the latter nations; and especial mention of it is made in the thirty-eighth chapter of the prophet Isaiah, wherein he says—"Behold, I will bring again the shadow of the degrees which is gone down in the *sun-dial* of Ahaz, ten degrees backward." Probably the idea of the dial itself was suggested by watching the shadow of some tall tree, as it followed the course of the sun from east to west. So, as the momentary sight of an apple falling to the ground, catching the eye of a philosopher, gave birth to the sublimities of the Newtonian system of astronomy, to this simple and passing object we may be indebted for all the successive improvements in the noting of time, which have reached, in the present day, a degree of perfection which, as we have already observed, enables the mariner to calculate his course across the pathless ocean, as also the astronomer to look for the "sweet influence of the Pleides," and all the starry host, at the precise moment when they will be revealed to him, as they track the orbits marked out for them by their Maker's hand. Lalande, in his *Considerations sur l'Astronomie,* mentions having a watch in his possession which, for forty years, had not varied one second. "Astronomers," he adds, "can divide a second of time into ten parts, without varying one-tenth in any of them." The next step, after the dial, in the marking of time, appears to have been the Clepsydra, invented by Ctesibus, of Alexandria, the son of a barber, who lived about two hundred and forty-five years before Christ: this instrument originally consisted of ten inverted cones, one of which was hollow, and perforated at its vertex; the other solid, and made to fit exactly the former. The aperture in the one was so adjusted to its size, that, when filled with water, it emptied itself in the course of the shortest day in winter. As the length of the case was divided into twelve equal parts, it was easy to indicate twelve hours by the successive descents of the fluid: the same results could be secured by divisions, marked on the vessel itself, and the cones could be differently arranged so as to adapt the fall of the water to the varying length of the day. Pompey employed the clepsydra to limit the Roman orators in the length of their speeches—a very useful thing for modern orators too. Cicero says, in allusion to this—*Latrare ad clepsydram.* Julius Cæsar tells us, he found water-clocks in Britain; and it was by them he found the summer-nights were shorter in that country than in Italy. The clepsydra was succeeded by the hour-glass, which had a long reign—seldom, indeed, till within these few years, was a cottage considered complete without one; and beautifully are its kindly offices set forth by Bloomfield, the Farmer's Boy, in his touching little poem of *The Widow and her Hour-Glass.* But its original use is gone by; and little now remains to it, but to "point a moral," or to serve as a characteristic appendage to the insignia of the rival despots—Time and Death.

We will not stay to inquire into the authenticity of the scheme, imputed to the inge-

nuity of good King Alfred, of measuring the hours he knew so well how to employ, by waxen tapers, divided into given lengths; because the fashion—singular enough to say of any fashion set by royalty—does not appear to have been followed: we must, therefore, proceed to the consideration of actual wheel-clocks, for the first idea of which Italy lays claim, as early as the year 510 of the Christian era; though, as no mention of the mode of its construction is made in her annals of science, we may be allowed to doubt the fact of her priority of discovery in this instance. Indeed, we might set up a counter-claim in the venerable person of St. Sebastian the Martyr, who lived in the third century, and in whose "Acts" mention is made of a machine answering to our modern notion of a clock, were it not for the impossibility of ascertaining the fact, on account of the original being sentenced to demolishment by the holy zeal of two other saints and martyrs—Polycarp and Stephen—who were scandalised by its exhibiting the motion of the planets, under ther pagan names. We must, however, concede to Italy the first actual mention of a chiming or striking-clock, as an article in familiar use, and that by no less a personage than the divine Dante—

> "Indi come *horologio* che ne *chiami*,
> Nel hôra che la sposa d'Idio surge
> Amattinar lo sposo, perche l'ami."—*Paradiso*, x. 30.

which is rendered, though somewhat verbosely—

> "Like solemn chimes at noon of night
> That call the spouse of God her faith to plight
> And love for love with fervent heart return,
> When sound to sound responsive vibrates clear."

Dante was born in 1265, and died in 1321: we may presume, therefore, that in the intermediate period, clocks had become of general use. Leaving, however, the farther discussion of these points to the curious in *antiquitates minores*, we will proceed to the notice of what the Exhibition afforded as most remarkable in the productions of modern horologists.

Until the middle of the sixteenth century, clocks were of such bulk, that they could only be placed in the turrets of churches, monasteries, and other large buildings. Before their introduction, the monks used to be called to matins by the crowing of the cock. At Pekin, even in the present day, the hours are still proclaimed by striking a gong with a wooden mallet, as in the time when the Tartars first invaded China. Strasburg and Lyons long considered their cathedral clocks as one of their proudest boasts: the complicated mechanism of both is now fallen into decay, and the advancement of science has caused its renovation to be little wished for; as the introduction of any machinery, not absolutely necessary, is found to interfere with the main object of exactitude of time. The oldest clock in England is one still kept going at Hampton-Court, and bears the date of 1548, in the reign of Henry VIII. It was about this time that clocks began to be so far reduced in size as to allow of their being used in private houses, in halls, on staircases, and, of late years, on an appropriately-diminished scale, in drawing-rooms—of which, from the richness of their outward material, and the ingenuity, elegance, and variety of the devices and figures with which they are adorned, they may justly be considered as one of the most elegant as well as useful ornaments.

We have just observed that, with respect to clocks and other time-pieces, ingenuity of mechanism is secondary compared to exactitude of time; but we may now be allowed to mention an instance in which both were combined, by Dr. Henderson, of Liverpool, who exhibited an astronomical clock, of curious construction, which showed the minutes and hours of the day; the sun's place in the ecliptic; the day of the month, perpetually, taking leap-year into account; the moon's age, place, and phases; the apparent diurnal

revolution of the moon; the ebb and flow of the sea at any port in the world; the golden number, epact, solar cycle, Roman indiction, Sunday letter, and Julian period; the mean time of the rising and setting of the sun on every day of the year, with its terms, and fixed and movable feasts: the day of the week is also indicated, and the year registered for 10,000 years past or to come. To show the very great accuracy of the motion in this complicated clock, a few of the periods may be noted—namely, the apparent diurnal revolution of the moon is accomplished in 24 hours, 50 minutes, 28 seconds, and 379,888,268 decimals of a second, which makes an error of one minute too fast at the end of 1,479 years. The stars will make a revolution in 23 hours, 56 minutes, 4 seconds, and 09,087,248 decimals of a second, which gives an error of one minute too slow at the termination of 589½ years. The synodical revolution of the moon is done by the wheels in 29 days, 12 hours, 44 minutes, 2 seconds, and 873,544,288 decimals of a second; and this will give an error of one minute fast in 1,167 years. The clock is said to go 100 years without winding up. It contains about 170 wheels and pinions, and upwards of 300 distinct pieces. Mr. Bennet, of Cheapside, was a conspicuous contributor: among the various articles of horology that were exhibited by him, we were more particularly struck by a hall-clock, enclosed in a richly-carved oaken case, in the Elizabethan style, complete in all its particulars; it stood on a pedestal elaborately carved, both case and pedestal being of pollard oak. The artist's design was very intelligibly rendered by the workman, and the entire work was produced without the aid of metallic ornament. The clock was a complete three-chimes, in which a gong was introduced for striking the hours; the quarters being played by a peal of bells. This work was the first application of the artist to the production of that which hitherto has been left in the hands of the workman, and bids fair to open up a new era in the style of English hall-clocks.

A chiming skeleton-clock was exhibited by Messrs. Moore and Son, of Clerkenwell, which chimed the quarters on musical bells, and struck the hours on a powerful-toned cathedral bell. It played twelve different tunes, one every hour during the day. The frames, the pendulum, and the steel plate upon which the clock rested, were elaborately ornamented with enamel. The face of the clock and hands were also enamelled. The whole was very elaborately finished, and mounted upon a richly-carved walnut-wood stand. Considered as a work of art, it was highly creditable to the makers, who are clock-makers to the Board of Ordnance, the Emperor of Russia, and the Chinese government. A curious time-piece was exhibited by Mr. George Lovejoy, of Reading, consisting apparently of only a dial of glass, on the centre of which an index-hand turns and points to the correct time, without any visible mechanism. The dial, which is of clear glass, with the hours painted upon it, is bordered by a rim of brass, supported by an elegant pedestal. It strikes the hours and half-hours, and goes twenty-one days. The secret of this kind of clock lies, we believe, in the fact that, instead of one there are two glass plates, on the outer of which are the figures. These revolve by means of a ratchet-wheel and connecting-shaft, concealed in the brass rim and supporters, the works of the clock being hidden in the basement. This clock, having but one (the hour) hand, must evidently be worked by some such plan as we have indicated. A very elegant design for a clock was exhibited by Vittoz, in the form of a globe arising from a body of clouds; a cupid was drawing aside a drapery embroidered with the *fleur de lys*, which, it appears, had veiled the dial-plate, and from the folds of which an eagle is pluming its wings for its upward course: one little cupid, on the summit of the clock, is extending his hand towards it, whilst behind him another is triumphantly waving a *fleur de lys*.

An astronomical clock, invented by W. Wright, was at once curious and well-made. It showed the minutes, hours, days of the month, and months of the year; the rising and setting of the sun and moon; the moon's age, phases, time of her meridian passage,

and position relative to the sun; the time of high-water at Aberdeen, and the principal sea-ports of Great Britain, Ireland, France, America, Spain, Portugal, Holland, and Germany. It was arranged to go for a year without winding up. We have been informed that the inventor of this ingenious instrument is a working tailor. Unquestionably the clock shown at the Exhibition was worthy of high commendation, and would have done credit to a practised horologist. An electric clock, exhibited by Mr. Shepherd, demands our especial notice. The hands were outside the building, but the mechanism was in the south gallery, fifty feet below. In the electric clocks previously constructed, the pendulum, at each vibration, touched a metal stud in connexion with a voltaic battery, and by that means communicated instantaneous but temporary magnetism to a coil of wire enclosed within the bob of the pendulum, and caused it to be attracted by a combination of permanent steel magnets placed within the sphere of attraction. The impulse to the pendulum was consequently derived from repeated magnetic attractions; and, as voltaic batteries are constantly liable to variation, the movement of the clocks varied accordingly. In Mr. Shepherd's arrangement, the impulse was given to the pendulum by a spring, and the electro-magnetic power was employed only to relieve the pendulum from the action of the spring during the return of vibration. By this means the impulse is altogether independent of the varying power of the battery, and the action is constantly the same. The whole of the works of this great clock were kept in motion by a series of powerful electro-magnets; and, by means of an immense coil of copper wire, other clocks in the Exhibition were kept going.

We must not conclude our remarks upon clocks, without some observations upon the *face* of one, the idea of which might be extended, with results as profitable to morality as pleasing to taste. We allude to that exhibited by Mr. Francis, of Devonshire-place. "In this design," as is happily expressed in the *Illustrated Exhibitor*, "it is attempted to make the familiar face of a clock a medium through which a palpable waste of time may be more vividly brought to the remembrance of the time-wasters. Around the face of the instrument are drawn two circles, in which are inscribed numerous texts from Scripture, all tending to instruct us how 'to walk wisely, in a perfect way.' The idea is extremely ingenious." We must beg leave to add—the idea is more than ingenious, it is extremely commendable; insomuch as it may be extended into many channels, which may lead to results of the highest importance to religion and morality. It was formerly the custom, in England, to inscribe texts of Scripture on the interior of the walls of places of worship —and a right, wise, and good custom it was; now only to be traced in some ancient humble village-church, where these inscriptions serve to exercise the school-acquirements of the young rustics in endeavouring to decipher them, and recall to the elders the lessons learnt in their boyhood, from the lips of pious mothers, mindful of the precept of the wisest of men—"Train up a child in the way he should go, and when he is old he will not depart from it." In Switzerland this excellent custom is carried still further: the outer walls of dwellings that seem to proclaim every comfort within, continually attract the eye of the traveller by texts of holy writ, which remind him that life itself is but as the journey of a way-faring man over rough roads and through bewildering paths, beset with perils by water and land; but cheered with the hope of finally reaching the desired haven of rest. How opportune, often, those friendly admonitions—how deeply do they sink into the heart—how long they are remembered—how forcibly they may return to the memory, at times when mere worldly wisdom fails to impart to us the support or consolation we may require! But we must not carry our moralising beyond the limits our friend, the time-piece, might point out to us: we will wind it up in the epitome of the Rose-clock—another ingenious though miniature monitor, depicting "Time and its doings" under the image of a rose, which, in its progress over the four limbs of a Maltese cross, that orna-

Engraved by T. Hollis from a Drawing by S. Mayson

PORCELAIN VASE CLOCK,

MANUFACTURED BY LA HOCHE, PARIS

Greatbach. from

THE [illegible] PLATE

EXHIBITED BY MESSRS E. KINGTON

Engraved by G Greatbach from a Drawing by T.H Wilson .

THE [illegible] TESTIMONIAL

EXHIBITED BY GARRARD .

Engraved by E. Silby from a Drawing by T. H. Wilson.

STAND

BY SMITH NICHOLSON.

Engraved by E. Silby from a Drawing by

SILVER URN.

BY J. WILKINSON & CO.

ments the back of the watch, represents in its bud, blossom, decay, and death, the four corresponding stages of human life. On one-half the margin, around the back, is engraved, on blue enamel—"Man cometh forth as a flower, and is cut down;" on the other—"It is sown in dishonour; it is raised in glory." The dial represents, in enamel, the rose-window of Westminster-abbey. The twelve hours show the names of the twelve apostles: on the bezil that holds the glass is engraved, in blue enamel—"He that taketh not his cross daily, is not worthy of me." Another lesson on the flight of time is more elegantly, because less formally, indicated in the design of Mr. Bell's Clock-case, which shows, in bas-relief, the hours, from the earliest "day's harbinger," that waits upon the rising of Aurora, to the latest—

"———— 'Twixt night and morn,
That marks of Heaven's high-arch the key-stone,"

circling round the enamelled dial of the time-piece, which represents the sun, in the centre of whose rays is the never-dying Phœnix, the glorious bird that resuscitates itself from its own funereal pyre. The case is supported by recumbent figures of Day and Night, which recalled to the travelled spectator the celebrated ones by Michael Angelo, at the foot of the tomb of Giuliano de Medice, in the Capella de' Principi, at Florence: the whole is surmounted by the figure of Psyche, that lovely personification of the soul, which most happily typifies the triumph of immortality over time.

We cannot close our remarks on this subject, without noticing the magnificent design, by Mr. Adams, of a clock in ormolu, exhibited by Messrs. Howell and James. It represents the hours circling in graceful dance, Apollo lashing the "fiery-footed steeds" of day; the Seasons displaying their attributes, and scattering fruits and flowers: the whole surmounted by Jupiter, the eagle at his side, and his sceptre in his hand, regarding with complacency the animated groups below.

CHAPTER VI.

WORKS IN PRECIOUS METALS.

ELECTROTYPE—ELKINGTON AND CO.—TRIUMPHAL VASE—SPOONS AND FORKS—TEA-SERVICE, BY DURRANT—MOREL'S CENTRE-PIECE—ARK OF THE COVENANT, BY BENNETT—ANGELL, HUNT AND ROSKELL, LAMBERT AND RAWLINGS—CENTRE-PIECES—RUSSIAN CANDELABRA—CENTRE-PIECE FROM MOSCOW, ETC., ETC.

Although we have already, in a former chapter, under the head of Ornamental Silver, made mention of a vast variety of rare and expensive examples of skill and perfection, which the worker in precious metals displayed in the Great Exhibition, still so many more in that fairy palace on every side,

"In rich profusion, caught the eye of Taste,"

that we feel no apology to be necessary to our readers for resuming awhile the gorgeous description. Indeed, in the department of works in precious metals and jewellery, the Exhibition was rich to a degree calculated to excite equal wonder and admiration—admiration of the elegance and appropriateness of the designs; wonder at, and, we may add, respect for the wealth of the manufacturers, and the spirit and liberality with which they applied that wealth to the public display of the talent of their artists, and the skill of their

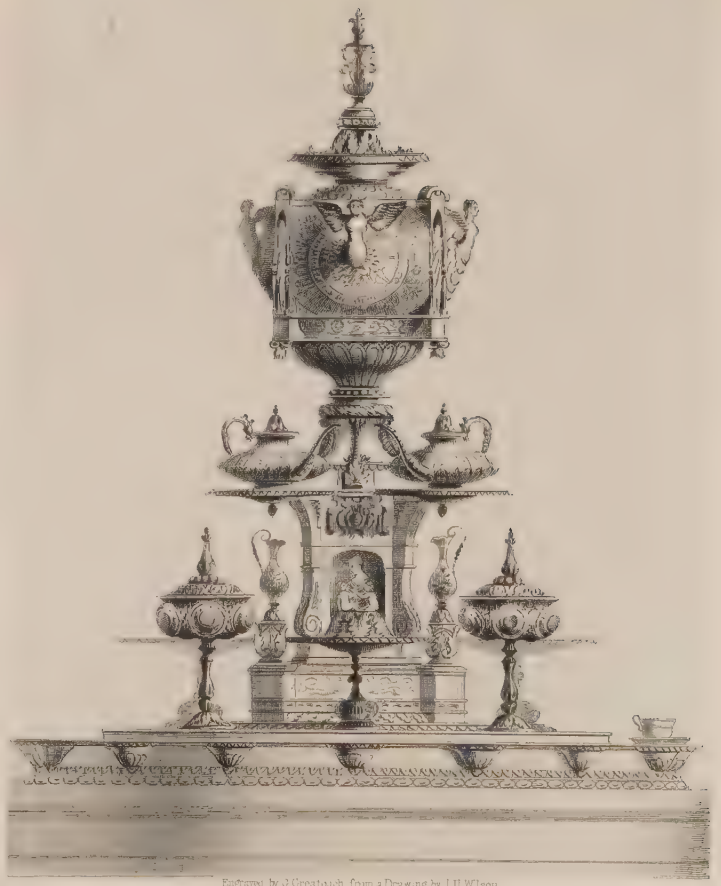
mechanics. It has been estimated, that the value of the British-made plate annually used in this country amounts to £1,200,000; and, in 1849, the exports in plate and jewellery amounted to the value of £233,058. The introduction of the beautiful art of electro-plating, like many other ingenious and important discoveries, was found out by accident, by Thomas Spencer, of Liverpool, and has greatly contributed to the multiplication of beautiful designs for the table and other ornamental purposes, which by electrotype can be produced for one-third of the cost of silver, which they fully equal in appearance, the beauty of which they retain for many years; whilst, by the same simple process, it can always be renewed, at comparatively trifling cost; and a still further advantage of the process is, that it may be applied with equal precision and perfection to copies, from the smallest gem to the largest statue, exhibiting all the accuracy and beauty of the original design. It has, indeed, no limits to the delicacy of its working, or the magnitude of the works produced; it will preserve or copy the down on an insect's wing, or cover the surface of a life-size statue, as in that of Geoffrey de Mandeville, Earl of Gloucester, A.D. 1215, modelled by J. G. Westmacot, at Rome, one of the most admired works in electro-bronze in the Exhibition, and now forming a principal ornament in the House of Lords.

It has been truly said, that the dome of St. Paul's might be gilt, and a man-of-war coppered by the electric agency; in fact, there are no limits to its capability, save that of the size of the vessel to hold the solution, and the power of the battery, or magnetic machine, to generate and supply the electricity. It may, indeed, be averred, that no application of science to the cause of manufactures has achieved a more complete triumph, or been more generally adopted than that of electro-metallurgy: other discoveries have had their periods of infancy, childhood, and middle age; but the art of the electrotype appears to have sprung up at once into vigorous life and usefulness. One of the most magnificent articles in this department was a vase in the Elizabethan style, from the manufactory of Messrs. Elkington, Mason and Co., the original patentees of the invention in 1840. This vase was intended to figure the triumph of science and the industrial arts, as set forth in the Great Exhibition. The body of the vase represented astronomy, philosophy, poetry, and mechanics, in statuettes of Sir Isaac Newton, Lord Bacon, Shakspere, and Watt. The practical operation of science and art were depicted in the four bas-reliefs between the figures, and their influence typified by appropriate figures at the base, the whole being surmounted, on the apex, by a figure of his Royal Highness Prince Albert, as originator and patron of the Exhibition, awarding the palm of honour to successful industry.

It would far exceed our limits to notice one-tenth part of the beautiful articles displayed in this department by various exhibitors, particularly in tea and coffee-services; but some few of them imperatively demand our attention: we cannot refrain from mentioning the spoons and forks, of which several hundred dozens can be produced in one day by means of a machine, in one portion of which a piece of metal is placed, which, after undergoing various operations, makes its appearance at the other side, of the ornamental shape or design required. Among the tea-services was a very magnificent production, entitled, *Fontaine à Thé*—quite a work of fine art—indeed, the most beautiful arrangement of tea and coffee-service, beyond all comparison, in this branch of art ever exhibited in this country. Anything so pure, so delicate, so harmonious, so artistic, was never seen before even in France, whose inventive ingenuity there really appears to be no hope of approaching. The entire service was composed of massive silver, whilst the workmanship in the modelling, chasing, and engraving, showed how high the reach of art may be carried by a tasteful designer, who is determined to excel. This service was valued at 2,000 guineas. When you approach the counter on which this exquisite *morçeau* was standing, it looked like a fairy pagoda, intended for some Chinese princess. The centre-piece was rather

Engraved by G.Greatbach from a Dag

Engraved by G Greatbach from a Drawing by H.H. Wilson



Engraved by J Greatbach from a Drawing by H.H. Wilson

BY WAGNER, BERLIN

OF HOLLAND

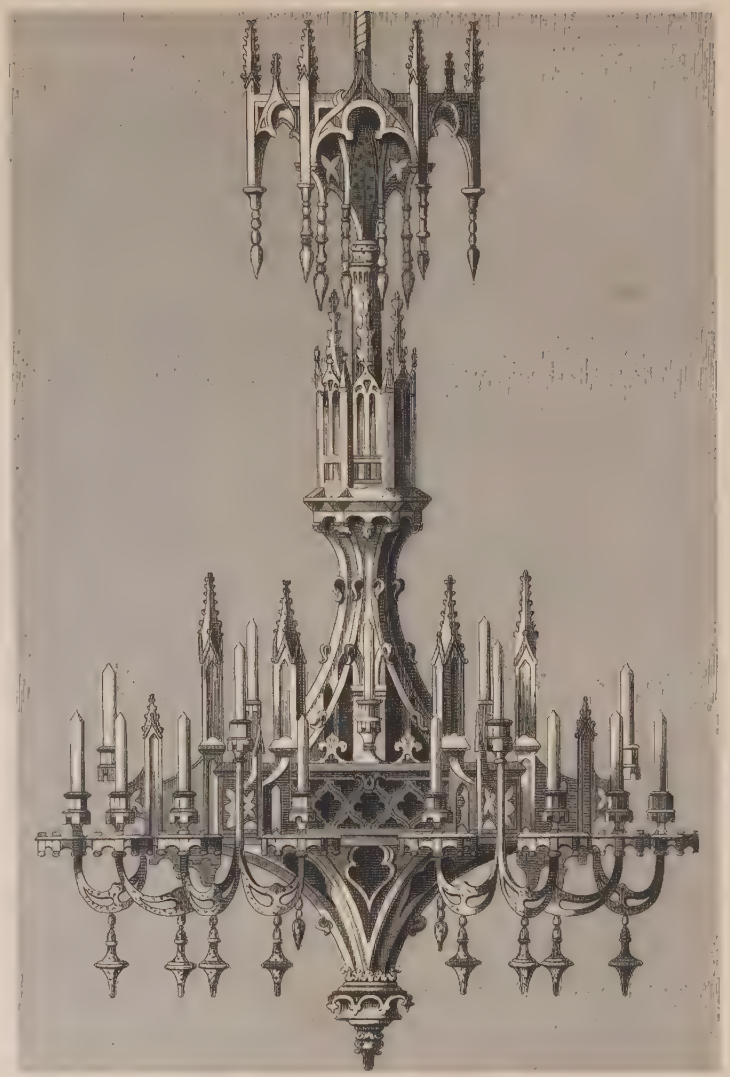
above four feet high; several bronze figures, fixed at different angles, afforded a fine relief to the plain white metal. The centre-piece was decorated with several baskets for cakes, fruits, &c.; on the sides of the tripod were small vases for a cream-jug, sugar-basin, and water-basin; the tripod itself was converted into a tea-urn; lower down were superb tea and coffee-pots; whilst the lowest range of all contained a set of tea-cups and coffee-cups. This lowest tier was much larger in circumference than the upper ones, and the graduation of the several ranges or tiers was managed with most accurate skill. Monsieur Durrant, of Paris, the proprietor and designer of this extraordinary piece of workmanship, had many other very tasteful pieces of the finest silver: he is a very distinguished manufacturer, and has carried off several prizes in his own country.

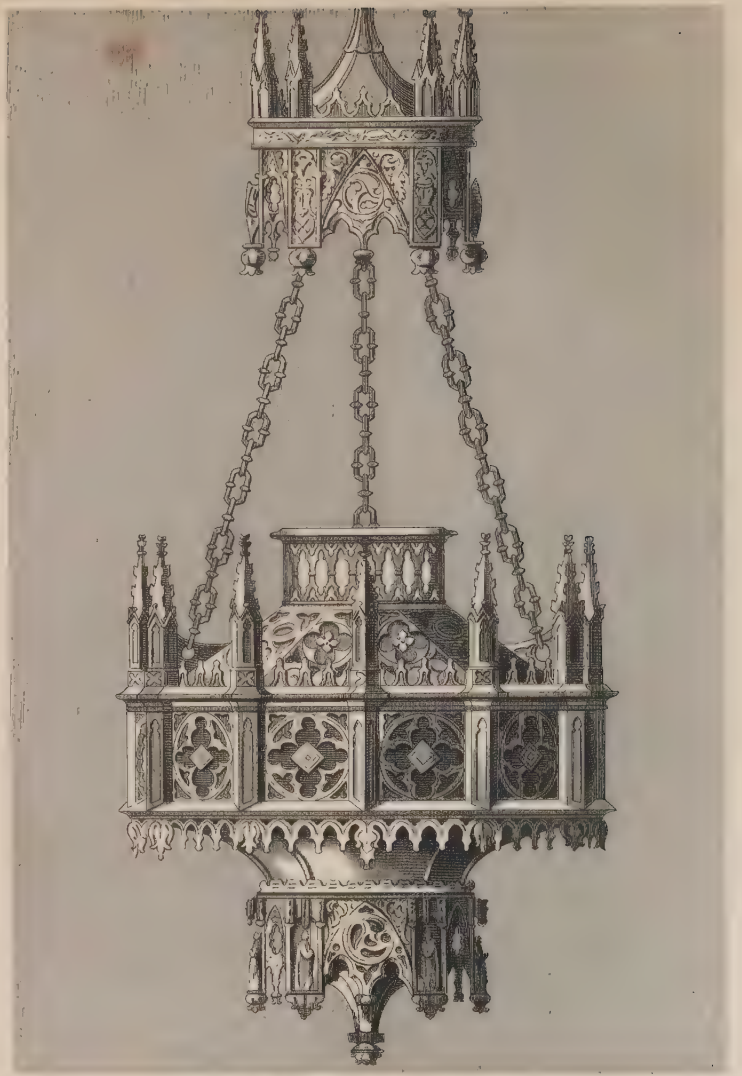
While we are upon the subject of these means and appliances for the science of gastronomy—a science for which our Gallic neighbours have always evinced a decided partiality, and in which they may be considered to possess equal profundity and taste—we must not omit to notice a soup-tureen by Odiot, which struck us as singularly appropriate, as far as indicating the nature of the contents was desirable; inasmuch, as the well-fed oxen, on whose shoulders the massive tureen was supported, having their heads only visible, suggested the idea, that the nature of the savoury compound could be no other than good rich bouillon, or more delicious ox-tail. We might hint at an enlargement of this idea—a carrying out the principle on a much larger scale: for instance, we should propose, that the turtle should be served up in a tureen the shape of its own shell, giving welcome notice to the worthy aldermen around the well-spread board, of the presence of their favourite dish. In short, the chasings and ornaments of each dish might be made indicative of the characteristics of the viands within. A very beautiful centre-piece, by Messrs. Morel, of New Burlington-street, was unquestionably one of the happiest works of its class in the Exhibition. It was in the Louis Quatorze style—the subject, a triumphal procession of Cupids with a panther. The little fellows exhibited varied, but appropriate attitudes—those at the corners guiding, rather than absolutely supporting, the branches which held the candles on either side. In the centre, crowning all, was a magnificent bouquet of flowers. Mr. Bennett, of Grafton-street, Dublin, contributed some exquisite specimens of electro-plate, consisting of a complete tea-service. We also have to notice a model, in chased silver, of the "Ark of the Covenant," the production of two workmen in Mr. Bennett's employ, and made expressly for the Great Exhibition. It was designed for a masonic ornament; and, with its cherubim with extended wings, and its highly-ornamental sides, on which were engraved the usual symbols of the Jewish faith, it formed a most conspicuous and really beautiful object. Accompanying the ark was a miniature gold breast-plate, with imitation stones, intended to represent the breast-plate of Aaron, the types of the twelve tribes being symbolised by the various coloured jewels. Besides these, the contributions of Mr. Bennett comprised a dazzling profusion of bracelets, brooches, coronals, &c., most of which were decorated with the harp, emblematic of Ireland, or the emerald wreaths of shamrock; Irish pearls, Irish diamonds, beryls, and other products of the soil or waters, were employed to enrich these magnificent specimens of jewellery; which were, besides, composed entirely of Wicklow gold or silver, and manufactured by Irish artists. Venice, in its most glorious days, might have envied these gorgeous specimens.

A silver dish was exhibited by Mr. J. Angell, embellished with a subject designed to honour and commemorate the Great Industrial Exhibition—her Majesty, as Britannia, receiving the contributions of the various nations of the earth; in the rim was a medallion containing profiles of the Queen and Prince Albert, and others allegorical of the four quarters of the globe. The design was by J. Henning, jun. It had a very pleasing effect. Kindred in character with the above was a gold vase, by Seymour and Son, ornamented

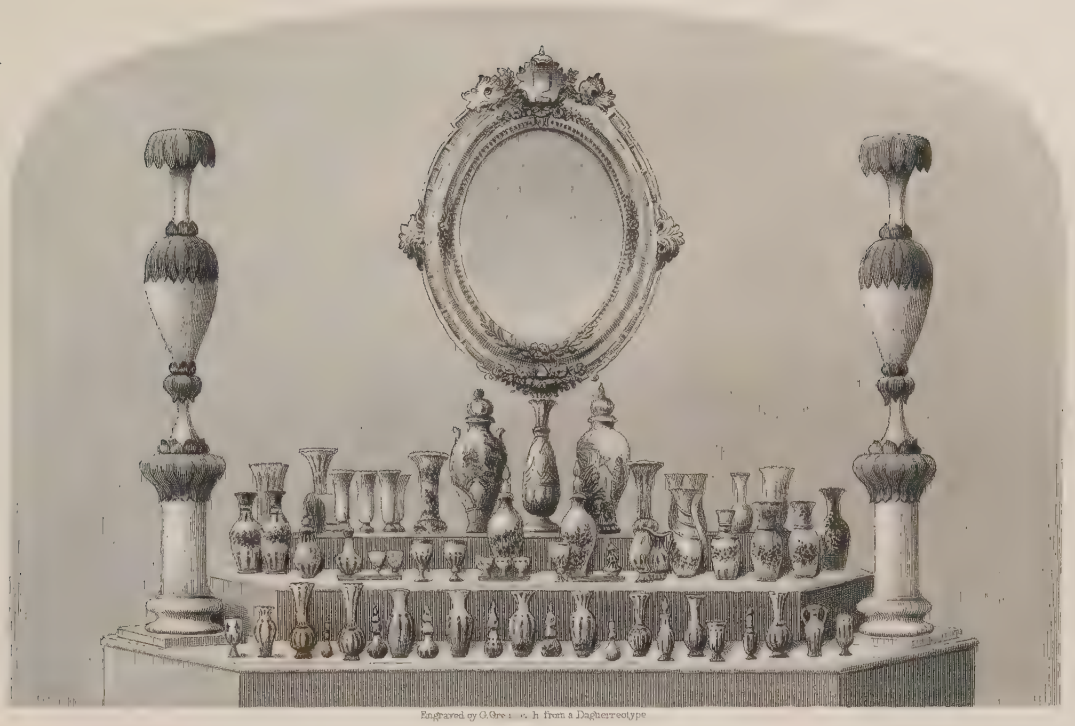
with enamelled portraits of the Queen and Prince Albert, in imitation of cameos. The transparent enamel colours on the body of the vase were the red or ruby-coloured enamel, green, and blue; in the neck was the turquoise-coloured enamel. These colours were all made by the exhibitors, and might safely challenge comparison with anything of the kind ever produced; the ruby-colour, in particular, was perfect. The portraits were painted by J. Haslem. Messrs. Hunt and Roskell exhibited a magnificent ornament and *plateau*, which stood in the west nave, near the Canadian department: it was executed with a view to exhibit the capabilities of silver in its application to sculpture and decorative art. It was adapted as a stand for flowers by day, and as a candelabrum by night; and with these objects the various groups were selected to agree in subject. On each quarter of the *plateau* were groups representing the Seasons: Flora, attended by her nymphs, playing with flowers, and a lamb, personifying Spring; Zephyrs, bearing on their shoulders a female figure, crowned with wheat, and carrying the sickle, representing Summer. Autumn was typified by the figures of Silenus, Bacchus, and Pomona; Winter, by aged Saturnus, who, seated on a leafless tree, was represented as spreading his mantle over shivering nature. On his left was a figure representing storm and tempest, accompanied by wolves. Beneath the groups were the signs of the Zodiac. On each foot of the centre ornament were figures representing the quarters of the world, each being accompanied by appropriate animals. The *alto-rilievo* around the column represented Day and Night, attended by the Hours; and around the stem, which supported the vase, were four figures, representing the elements. The whole was richly decorated with ornaments of the Cinque Cento period.

A handsome centre-piece, by Lambert and Rawlings, was also intended to be commemorative of the Great Exhibition of 1851, for which it was produced. At the top was Britannia, with the palm-leaf in one hand; and below were figures, emblematic of the four quarters of the globe, presenting the fruits of the earth. Beneath were Tritons and the heads of sea-gods. Messrs. Watherston and Brogden exhibited a gold enamelled and jewelled vase, which, apart from its intrinsic value, and its great merit as a work of art, possessed a sort of national interest, from the nature of its design. On the cover were the figures of Britannia, Scotia, and Hibernia. Around the edge of the cup were figures symbolical of four of the divisions of the world; the fifth, Australasia, or Oceanica, being omitted, the which we consider a defect; but this may be a matter of taste. These figures were very well executed, and beneath them were festoons of diamonds, representing the rose, thistle, and shamrock. The body of the vase contained *rilievos* of the landing of the Romans and the battle of Hastings. The two handles were terminated by the figures of St. George and St. Dunstan, the protectors of chivalry and the mechanical arts. Beneath were busts of Nelson, Wellington, Milton, Shakspere, Newton, and Watt; and on the lower part of the vase were figures of Truth, Prudence, Industry, and Fortitude. This splendid gold vase weighed ninety-five ounces, and was most superbly decorated with diamonds, pearls, rubies, carbuncles, sapphires, and emeralds; and appeared to realise the description of the finest works of that astonishing artist, Benvenuto Cellini, the Italian sculptor, goldsmith, and artist of the fifteenth century. The beauty of this vase was very much increased by the enamel-work, the colours of which were richly blended, and harmonised well with the precious stones with which the whole was profusely decorated. It was enamelled by Mr. James, of Hatton-garden, and from its being the largest gold cup ever manufactured in this country, the enamelling was a great difficulty; new furnaces had to be built, and had it not been for the purity of the gold, the enamel would not have been perfect, as gold of an inferior quality warps in the fire, and the enamel crusts. This vase was made expressly to elucidate the admirable perfection with which Watherston





CHURCH LAMP IN SILVER



Engraved by G. Greatbatch from a Daguerreotype

GROUP OF BOHEMIAN GLASS VASES

EXHIBITED IN THE AUSTRIAN DEPARTMENT

EXHIBITED IN THE AUSTRIAN DEPARTMENT

THE QUEEN'S SALT CELLAR.

DESIGNED BY JEANNEOT MANUFACTURED BY MESSRS ELKINGTON

CENTRE PIECE THE SEASONS

BY [illegible]OMAN MEJRICE

BY M. VITTOZ

BY M. LEDO

THE RUSSIAN CANDELABRUM,

REPRESENTING THE DELIVERANCE OF RUSSIA FROM THE YOKE OF THE MOGULS, SEPT. 8, 1380

BY SAZIKOFF ST PETERSBURGH

VASE OF GOLD, JEWELLED AND ENAMELLED,

DESIGNED BY A. BROWN, AND MANUFACTURED BY MESSRS WATHERSTON & BRODDEN

CANDELABRUM

TO WILLIAM CHARLES MACREADY, ESQ.

NTING AND PUBLISHING COMPANY

and Brogden are so well known to produce the finest articles in the jewellery department; and to those acquainted with the goldsmith's art, and who have studied the splendid displays made on the continent, the greatest marvel is, that so elaborate a piece, in all its minute details, should not have been in hand before January, 1851. With the exception of the *rilievos*, the whole could not have been more carefully or skilfully finished, had twelve months been taken to accomplish it. This old-established firm knew the immense efforts which were being made on the continent, and they exerted themselves to produce something which might sustain their own credit and that of the goldsmiths of the United Kingdom. It was only by the most extraordinary exertions that this was accomplished; but it must have been highly gratifying to them to have achieved so great a success. A prize medal was awarded to the firm. Ere we quit these ornamental tributes to genius and talent, we must not omit to mention the magnificent testimonial to W. C. Macready, exhibited by Smith and Co., of Duke-street, Lincoln's-inn. This token of public approbation was presented to the great tragedian on his retirement from his duties as manager, at a public entertainment at Willis's-rooms, the Duke of Sussex presiding, and was the result of a subscription set on foot by his royal highness, at a similar entertainment at the close of his Covent-garden management. The work was richly wrought in silver, and represented the renowned son of Thespis seated and contemplating a dramatic manuscript, while the arts and the muses thronged around him to lend him inspiration. A full-length figure of Shakspere graced the top of the design.

The Candelabra in the Russian Court were justly admired for their gorgeous magnificence. Varied in form, they exhibited a splendour of material (bronze gilt), a *grandiose* character of design, and a masterly finish, which one might almost pronounce it to be impossible to excel. The largest one, by Chopin, of St. Petersburg, standing about fifteen feet high, and intended for eighty-one candles and four candle-lamps, is valued in the catalogue at £633 6*s.* 8*d.* The ornamental works contributed by Russia were numerous, and of a remarkably high order of merit. The principal one, exhibited by the house of Sazikoff, of Moscow, was a large centre-piece, comprising a group representing Dmitri Donskoi, Grand Duke of Muscovy, after the battle of Koulikoff, in 1380, which delivered Russia from the yoke of the Tartars, under which it had been oppressed for 150 years. The artist had chosen the moment when Prince Michael Tverskoy came to announce to the Grand Duke (who, having been wounded, was reclining under a palm-tree), that the victory had been gained. The figures were extremely well designed, and the general effect highly artistic. There were other smaller fancy subjects distributed in various parts of the glass case, such as a goblet, representing a Cossack woman; another, with a Finish hunter; a third, with a milk-woman; and a paper-press, ornamented with a group of a dancing-bear with peasants, all characteristic and capitally executed. Besides these, were cups, some of the Byzantine style, some of the Russian, and various other objects, which reflected great credit upon the taste of the old Russian capital. Verkhovzoff, of St. Petersburg, had also a very handsome display, though of fewer works, including a bas-relief in silver, on a gilt ground, representing the descent from the cross, chased by hand; and another, representing the crucifixion, prophets, and evangelists, also chased by hand, in the old Byzantine style, and intended as an upper cover for the New Testament.

Among the minor specimens of ornamental silver that abounded in this department, we may notice the silver tea and coffee service, by Smiley, which were very beautiful and elaborate works; the designs were all punched and richly chased, representing the various stages in the culture and preparation of the tea-plant. We hardly approve, however, of the taste shown in the introduction of the figures of her Majesty and Prince Albert, as ornaments or handles to the lids. The silver wine-flagons, by Lambert and

Rawlins, were noble in form, being after the fashion of the old camp-bottle, and decorated in the *rénaissance* style, in silver-gilt. Just the sort of thing to grace the table of an old baronial hall on a birth-day, or other family anniversary. The design of the silver inkstand, by Martin and Co., represented as a thistle, does not strike us as a very happy idea, except it be intended as a metaphorical illustration of the peculiarity supposed to characterise the *genus irritable* of scribblers, in which case we would recommend, as an appropriate motto, the Scotch proverb, *nemo me impune lacessit.* The introduction of hooks or rests for the pen upon the stalk, is decidedly an addition not found in nature; the execution, however, is highly satisfactory. The silver claret-jug, by Lias and Sons, was handsomely shaped, ewer-fashion; somewhat elastic in form, covered with vine-leaves, grapes, &c. Designed by J. Fitzcook. The fairy summoner was a fanciful and pretty idea, very pleasingly realised. Puck, or Robin Goodfellow, was represented as seated on the inverted cup of a tulip, serving as a hand-bell, and with his hands raised to each side of his head, appeared to be shouting out lustily, to summon the spirits of the air to do the bidding of his gentle mistress. The subject altogether reminded us of the merry sprites, "Peaseblossom" and Co., in the unrivalled descriptions of the *Midsummer Night's Dream.* A silver casket, by Meurice, was worthy, in delicacy of manipulation and originality of conception, the hand of Benvenuto Cellini, the great Florentine master of the art. M. Fromene Meurice would have been welcome in Hyde-park, had he exhibited no further specimen of his art than this single object. The pokal, or drinking-cup, from the royal porcelain manufactory at Munich, was a beautiful specimen of the good taste and correct judgment of its designer, Neurenthier, an artist worthy the celebrated capital of Bavaria.

CHAPTER VII.

CARRIAGES.

EARLIEST ACCOUNT OF, IN SCRIPTURE—WHEN INTRODUCED INTO ENGLAND—HACKNEY-COACHES—STAGE-COACHES — SEMI-CIRCULAR CLARENCE—COOK'S PATENT BROUGHAM—DAVIE'S PATENT CARRIAGE—ROCK AND SON'S DIORAPHA — KESTERTON'S AMEMPTON — HORNE, MULLINER, WILLOUGHBY—BATH-CHAIRS—JAUNTING-CARS—CABRIOLET—CABS, ETC.—JURIES' REPORT ON CARRIAGES.

We shall introduce the subject of our present chapter to our readers with an extract from the pages of an able contemporary, whose remarks evince considerable research, and are equally graphic and correct:—"Man has been variously described as a cooking animal, as a laughing animal, a trading animal (and by no end of other attributes), as the culinary, risible, commercial, or other feelings of the describer predominated; but, as we walked through the compartment of the Crystal Palace devoted to carriages, cabs, locomotive engines, and other means of conveyance, we could not help thinking that he might be quite as appropriately distinguished from the brute creation by the definition of a coach-building animal. Nor was this opinion weakened on our way home through Piccadilly, crowded with cabs, omnibuses, and every description of vehicle, conveying hundreds of passengers, here, there, and everywhere. From the days of the charioteer Jehu, who, we are told in Scripture, 'drove furiously;' from the days of the old Assyrians, Ninevites, and Babylonians, of whom we have the sculptured representations

Engraved by G. G[illegible] from a Drawing by T.H.Wilson

[illegible] FLOWER STAND. (EUROPE.)

[illegible]

Engraved by G. G[illegible] from a Drawing by T.H.Wilson

[illegible] FLOWER STAND. (ASIA.)

BY JOSEPH ANG[illegible]

Engraved by T. Hollis from a Drawing by H. Mason

SILVER CUP WITH EMBLEMS OF WAR.

Engraved by T. Hollis from a Drawing by H. Mason

SILVER CENTRE PIECE.

Engraved by G Greatbach from a Drawing by T.H.Wilson

SILVER CENTRE PIECE

BY LAMBERT & RAWLINGS.

Engraved by G Greatbach from a Drawing by T.H.Wilson

SILVER CENTRE PIECE

BY HUNT & ROSKILL

Engraved by G.Grearbach from a Drawing by T.H.Wilson

SILVER CENTRE PIECE

BY MESSRS WILKINSON & Co

Engraved by G.Grearbach from a Drawing by T.H.Wilson

SILVER CENTRE PIECE

BY MESSRS GAR

as they appeared in their chariots of war; from the days of the Olympic chariot-races; from the days of the ancient Britons, who, Cæsar tells us, garnished their coach-wheels with scythes, down to the present time, when fast men drive about in Hansom cabs; when hard-worked mechanics take a shilling trip by railway into the green fields; and when even the poorest occasionally indulge in a threepenny omnibus to Camden-town, or other suburban retreats—we have continued evidence of other means of locomotion than the two legs with which nature has endowed us. Yet, notwithstanding this antiquity of the practice of riding in carriages, coach-building, as we now understand it, is of but comparatively recent date in England, being no further back than the reign of Elizabeth.

"Stow tells us, that—'In the yeere 1564, Guylliam Boonen, a Dutchman, became the queene's coachmanne, and *was the first* that brought the use of coaches into England; and, after a while, divers great ladies, with as great a jealousie of the queene's displeasure, made them coaches, and rid up and down the countries, to the great admiration of all beholders; and then, by little and little, they grew usual among the nobilitie and others of sort; and within twenty yeeres became a great trade of coach-making.' Anderson, in his *History of Commerce,* makes the use of coaches in England even later than this, and says they were introduced by the Earl of Arundel about the year 1580. For a long time they were exclusively confined to the wealthy classes; and it was not till the year 1625 that coaches were let for hire, when they stood at the principal inns in London. In 1637 there were, in London and Westminster, only fifty hackney-coaches. From coaches let for hire, the next step in England was the introduction of stage-coaches, which, very soon after 1638, were established. These, the immediate precursors of the omnibus for short distances, and railway for longer ones, bring us down to our own day. Of mail-coaches, the first ran between London and Edinburgh about the year 1785; and the next, from London to Glasgow, in 1788; from which time, spite of the intricate reticulation of railways, which now, like a cobweb, cover the map of England with its thousand branches, they have continued down to this day; and in many a country village may still be seen the round red face of the coachman, as he pulls up at the door of the little road-side inn—still may be seen the bustling ostler, as he releases the smoking team from their harness, to give place (as has the system of which they are a type) to fresher, stronger cattle—still may be heard the guard's official note as he winds his horn on starting—vestiges, though they be of an age, which, though all but our own, has been miraculously hurried into the past by the omnipotent power of the steam-engine. From the sedan-chair and the cumbrous barge of the days of Elizabeth—luxuries that none but the higher classes could indulge in—to the excursion-train and the penny-boat of our own, how great a change! How great a change, too, from the heavy, lumbering vehicle which Guylliam Boonen constructed for his royal mistress, to the light, the graceful, and commodious vehicles we saw exhibited in the Crystal Palace!"

The contributions of our carriage-builders to the Exhibition maintained the superiority which they have long held in this department of manufacture. Amongst the carriages exhibited, there were none absolutely new; but the special requirements of almost every one were here provided for. Approaching the style of a state-carriage, was the "Semi-circular Clarence," built by Offord for the Exhibition; in which the axletree was so constructed, that if it should break, the wheels would continue to run without coming off; the springs were made on a plan to procure the ease of a long spring, without its unshapely form; and a new self-acting door-lock fastened itself, and prevented the door from rattling. The hammer-cloth of blue silk velvet, decorated with gold and silver, was stated to be unique in design; but appeared better adapted to ornament the carriage of an ambassador, or other important official personage, than that of a private individual. Among the carriages of more utility, in which ease and convenience were especially

attended to, was a patent Brougham, with inverted double C springs, from the manufactory of Cook and Co. The old-fashioned C springs, from which carriages were generally hung, give a much more easy motion than the elliptical springs that have, in a great measure, superseded them. The suspension of a carriage from curved springs is a very effectual means of preventing jolting, though it is liable to produce a swinging motion; but the principal objection to them is their appearance. In the carriages fitted with the double C springs, this objection has been removed; for the double curve affords sufficient elasticity within a much shorter space, and they are arranged underneath the carriage in the same position as, and looking scarcely more prominent than, elliptical springs. In the patent carriage of Cook and Co., fitted with these springs, there was also a convenient arrangement inside to serve as a substitute for the carriage-baskets, which occupy so much room in front. Without impairing the external appearance, there was a cupboard made inside the coachman's seat, which opened inside the carriage.

A carriage with patent automatic invisible steps, invented and exhibited by D. Davies, of Wigmore-street, dispensed with the attendance of a footman to open and shut the door. The steps acted on the principle of the "lazy tongs:" they opened with the door, and, as the door closed, they folded up underneath very compactly. There was also shown a simultaneous double step; by a small connecting-rod, both treads opening and shutting at once, and more conveniently than in the ordinary double step; it could be opened or shut by a person inside the carriage, and made to work with the door. An economical arrangement for those who desire to have different kinds of carriages combined in one, was shown by Rock and Son, of Hastings, the inventors of the patent Diorapha, which may be used either as a Clarence, as a barouche, or as an entirely open carriage; if a covered one be wanted, either entirely closed or not, the appropriate head is fixed on. The folding-steps are likewise on a new principle. Kesterton's amempton carriage was also of this class; which, by a simple contrivance, could be converted into a light, open, step-piece barouche. The framework was secured to the head with a new kind of fastening; and the back, instead of being flat, was of a curved form. A four-wheeled model carriage was exhibited by the designer, G. H. Bascomb, of Chiselhurst. It indicated the distance of the ground travelled over, and marked the same upon a dial; it had spiral springs beneath the driving-box seat; an elastic bar to relieve the feet from vibration; four preventive-wheels, in case of accident; two arms with roller-wheels, to protect the vehicle from collision; and a screw-break, by which the driver acts upon the wheels, so as to ease the vehicle down-hill, or stop it.

In Horne's patent segmental Brougham and chariot, the distance between the wheels was greatly shortened by the application of the eccentric double perch bolt-lock in the turning of the fore-carriage. A new four-wheeled carriage, or improved Brougham, by H. Mulliner, of Leamington, had two distinct curves instead of one in the front part, and trimming inside at the back. In the communication with the coachman, the voice-conductor was entirely concealed; and the mouth-piece was at each side, instead of at the middle of the back, as usual, and suspended from the roof. By Willoughby's carriage, invalids with fractured limbs, or severely afflicted, may be removed from their beds, without change of position or fatigue. Inside is a kind of platform, supported from the top by springs, which passes under the front of the carriage, and is long enough to hold a person in a recumbent position. A portable couch, which fits on to this platform, may be carried into the bed-room, and the invalid having lain down upon it may, without the slightest change of position, be introduced completely into the carriage through an opening at the back. Room is left on the side of the couch for two seats to hold attendants. Of invalid, or Bath chairs, to be drawn by hand, there were many kinds. One manufactured by Jordan had a self-adjusting reclining

apparatus, an addition to the usual construction; and another, called a park wheel-chair, invented by Heath, of Bath, was decorated with paintings and glass panels. There were, among the carriages, several varieties of jaunting-cars, dog-carts, and other light vehicles, some of which were constructed with remarkable paucity of materials, and were elevated by high wheels, so as to run over the ground with scarcely any perceptible draught.

Among the models of public carriages was a cabriolet, to carry five persons in separate compartments; and an omnibus divided into compartments; both patented by J. A. Franklinski: the omnibus had an outside gallery, with a separate door to each compartment, and an improved method of reaching the roof by end-steps; and the entire carriage was two hundred-weight lighter than those in general use. A large omnibus, manufactured by Kinross, of Stirling, was also shown: it was made to carry nineteen passengers inside, and had a large ventilating well in the roof; the passengers, when going out and in, could walk upright; and the well formed a comfortable seat for outside passengers. It had double hind-springs, so that when lightly loaded, the motion was easy; and, when heavily loaded, both springs came into action, and caused it to retain the same motion: it was adapted for two or three horses abreast, with equalising-bars or levers; as was also the omnibus exhibited by Menzies, of Glasgow. Rock and Gower, of Hastings, exhibited their patent omnibus, in which each passenger had apportioned his proper share of space on the seat—namely, sixteen inches: the front and hind were circular, and the door opened both ways, so that passengers might get upon the step, from either side of the road, with safety. There was also shown an improved "Hansom" cab, in which the driver was brought down from his elevated perch behind the hood, and the wheels were of lighter make. The body, too, was brought nearer to the ground, and rendered more accessible; but the main features of the old style were preserved; and no attempt had been made to secure a registration of distances. Shillibeer exhibited two of his patent funeral carriages, in which were combined the hearse and mourning-coach in one vehicle. D. Mitchell, of Whitburn, Linlithgowshire, exhibited his model of a safety carriage, which, in peril, might be stopped from the inside with facility and safety; this invention was described in fifty different languages.

Of improved carriage construction, several specimens were exhibited; including working-models of Collinge's patent axletrees, besides their spherical hinges and fastenings; Crosskill's improved patent wheel, in which the spoke was turned with strong double-shouldered ends, the rims were turned, and double-shouldered sockets bored in the fellocs—the hoop-tire being made and affixed by patent steam-machinery. Aitken's patent iron wheels were stated to have nearly one-third less draught than any now in use, and from their suspending construction, to obviate all jar; and, in case of accident, a spoke of the wheel could be replaced in ten minutes, without removing the tire. In Lee's patent, when the axle breaks, the wheels bear up, and continue the work of the carriage, without the axle; and they do not take fire, as the boxes carry oil to last twelve months. There was also shown a model of Grisdale's spring carriage-wheels, in which the springs are inclosed in the nave of each wheel, and revolve with them; and any shock, from the uneven road, is received on the springs alternately. Mr. Gibson, of Birmingham, exhibited his elliptic springs, between which is placed a block of Indian-rubber, the three thicknesses being bolted together (with sufficient play), and covered with a brass box. Among the coach-furniture, that of Worcester china was generally admired; and much of the coach-lace was in excellent taste.

In the "Report of the Juries" on our present subject, we have the following pertinent remarks:—"The fact most obvious in the display of carriages, is *the want of variety in the kind*, and the absence, particularly of the higher class of equipages, of travelling-carriages, properly so called, and of vehicles intended for the public service. The dress

or plain *vis-a-vis*, the dress or plain coach, the landau, the mail-coach, &c., have no representatives in the Exhibition. We confess we are somewhat surprised at the deficiency in this respect; but regard it as accounted for, in a great measure, by the demand for carriages of these descriptions having been so materially diminished by thegeneral introduction, within a recent period, of railways. We are also of opinion, that the trade is not fairly, any more than fully, represented, and that the art of carriage-making has attained a point of excellence which would warrant the expectation of a higher standard of merit than is shown in the Exhibition. While we recognise very generally the use of superior woods, leather, and other materials in the construction of carriages, the most admirable workmanship, and a nice attention to details, we perceive many defects in style, and the display frequently of bad taste. There is often an injudicious expenditure on costly ornament and elaborate finish, which are incompatible with the serviceable class of carriages to which they are applied. In many instances this is carried to an extent that mars instead of enhancing the beauty of the vehicle, and besides increasing the cost, is a positive detriment. Comparing the state of the art of carriage-building of former and not very distant times with that of the present, we consider the principles of building, in many respects, greatly improved, and particularly with reference to 'lightness' and a due regard to 'strength,' which is evident in carriages of British make, and especially displayed in those contributed by the United States, where there is commonly employed, in the construction of wheels and other parts requiring 'strength and lightness combined,' a native wood (upland hickory), which is admirably adapted to the purpose. The carriages from the continental states do not exhibit this useful feature in an equal degree.

"We observe many innovations and contrivances in springs, steps, fore-carriage locking movements, &c., which are not always improvements, and yet convenience and nice adaptation have been much advanced in these respects, also, within a few years. We notice a justly meritorious and very nice automatic step on the carriage of Mr. David Davies, of London; and an ingenious spring door-lock, on a carriage of M. Mousard, of Paris. In our judgment, the appearance of the carriage has not been improved by a deviation quite common from the lines hitherto adopted and approved; and we regret to remark, under the head of 'elegance of design,' that we find in the exhibition of carriages a great deficiency. While we admit, therefore, that there has been considerable progress in the principles of carriage-building, we are of opinion that the style has been injured by injudicious innovation. We are aware that the coach-builders of the present day have had no easy task to perform, in meeting the new demands of the age, which require them to construct vehicles to convey the greatest number of persons. It can hardly be expected, that in carriages of such a description, they can preserve those outlines which have been esteemed elegant and graceful. It is to be depricated, however, that this necessity, in some cases, of departure from the rules approved by good taste, should be displayed in the higher class of carriages of pleasure and luxury, since these must be exempt from the difficulty referred to; and it is to be hoped that future innovations in that direction will be governed by a nice discrimination and sound judgment.

"We do not observe that there has been, what may be properly considered, a 'successful application of any new material;' although we may mention the application, recently, of a band of caoutchouc around the rim of carriage wheels, in order to render them 'noiseless.' This application may be useful, to a limited extent, on light carriages, but it is of very doubtful general utility, and does not appear to be adapted to long or hard street-service. We are pleased to see the general use of very superior patent and enamelled leathers, combining, in a remarkable degree, pliancy and waterproof qualities. This is conspicuous in the contributions of Great Britain, France, Belgium, and the United States. The iron-work is also generally of the best description, in point of quality of the

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LADY'S WORK TABLE

DESIGNED AND MANUFACTURED BY MESSRS WHITE & PARLBY

Engraved by G Greatbach from a Daguerreotype

A LADY'S MECHANICAL ESCRUTOIRE OF WHITE WOOD.

FOR WRITING IN A SITTING OR STANDING POSTURE

DESIGNED & MANUFACTURED BY M. I. WETTI OF BERNE

OR MOLU COT

MANUFACTURED BY R. W. WINGFIELD BIRMINGHAM

metal, and the execution; but in many cases it lacks due simplicity in form and arrangement of some of the parts. The perfection which textile manufacture has attained of late years, has had a corresponding effect on the interior fittings of carriages, which in linings, &c., are now beautifully appointed at a comparatively moderate cost. The consideration of 'reasonable cheapness' has been duly observed; but it is obviously very difficult to determine the exact intrinsic value of an article like a carriage, and to judge positively whether the affixed price is excessive or not. The cost is often much increased by ornament, finish, or contrivance, that might be advantageously dispensed with; and thus a carriage, otherwise extravagant in price, be reduced to the standard of 'reasonable cheapness.' And this useless addition of expense is a fault of common occurrence, to which we have previously alluded. Extravagant prices may fairly diminish the claim for approval; but at the same time we are convinced, that what may be deemed high prices, are not always exorbitant prices; but that with carriages, as with articles of household furniture, the most similar perhaps to those under our notice, where the quality of the article is more or less concealed, the lowest-priced may often prove to be the dearest purchase."

The juries proceed to sum up their observations on the subject of carriages and their builders, with the following guarded expressions of limited approbation:—"After a patient, and we believe, thorough examination, we are unanimously of opinion, that there is no contribution among the articles in our department which possesses such 'pre-eminent and indisputable merit,' as to be entitled to the 'council-medal;' and, therefore, we do not recommend that this distinguished award be bestowed on any. But while we withhold the highest mark of merit, from a sense of duty, we do not deny the prominent claims of many contributors to distinction; and we have endeavoured to select those upon which we think we can confer, with the greatest justice, the only mark of merit at our disposal." They then subjoin a list of those contributors to whom they award a "prize-medal;" and we observe with satisfaction, that our own countrymen bear away by far the largest portion of the honourable distinction.

CHAPTER VIII.

THE LADIES' DEPARTMENT, Etc.

BRIEF SKETCH—LIMERICK LACE—ANTIQUE POINT—SIR WALTER RALEIGH'S COLLAR—SISTERS OF MERCY—ALTAR-CLOTH—MISS ELLIS—TATTING—NEEDLEWORK—MORAVIAN WORK—NETTLE-FIBRE SHAWL—CROCHET—KNITTING—TABLE-COVERS—LACE DRESS, ETC., ETC.—FOLDING-SCREEN—THE GIANT'S CAUSEWAY—MOSAIC NEEDLEWORK—CURIOUS COUNTERPANE—AUSTRIAN NEEDLEWORK—ECCLESIASTICAL DRESSES—CONTRIBUTIONS FROM THE ZOLLVEREIN.

Many a brave man has, we believe, paused on the threshold of a drawing-room full of gay and fashionable *belles*, with feelings of trepidation, which he would have been indignant with himself for being conscious of on the point of starting for the field of battle; and we must plead guilty of some degree of nervousness in ourselves, as we prepare to enter upon the mysteries of the "Ladies' Department," where, if awful beauty does not actually "put on all her arms," she at any rate sees the materials from which they are to be fashioned, and anticipates the conquests she may win from the judicious selection and happy appliances of them. But now to enter the sanctuary. What clouds of "woven air" float around us! What webs of fairy finger-work, fine as Arachne ever traced! What undulations of

feathers of every varied plumage! What resplendent silks, emulating every bud and blossom thrown forth by Flora from her "green lap" and "pictured urn!" What Satrap pomp of satins, velvets, furs! What Orient splendour of gems! What delicate traceries of gold and silver! what tapestried hangings, sheltering curtains, luxurious carpets, and repose-inviting couches! Verily, this "Ladies' Department" is as capacious as it is tempting; nor can we wonder at its attracting so many bright eyes, and detaining so many willing and noiseless feet amid its treasures: but we of the sterner sex must make our visit more brief, and content ourselves with only concise mention of some of the most striking of the articles so important to the fair, and therefore eventually to the world at large.

Having now conducted our readers into the grand emporium, let us commence with the article of lace, and chiefly as we are indebted for its production to our sister-island. The objects of greatest interest in relation to Ireland, are the means which are being taken to develop her industrial resources, and find employment for her people. The Limerick lace has always been celebrated; and of late the lord-lieutenant of Ireland, Lord Clarendon, has been exerting himself in promoting this branch of manufactures. It is through his influence that the manufacture of the Belgian lace has been introduced into Limerick. A lady from Belgium, to instruct the workers, has been brought over by one of the sisterhoods of nuns; and the success of the experiment is no longer doubtful. In Limerick, there are four lace-factories, employing, together, not less than 1,000 girls, who earn from 1*s.* 6*d.* to 6*s.* per week, according to their proficiency. The designers earn from 6*s.* to 7*s.* per week. In the convents, the lace-making is taught as a branch of industrial education. The enlargement of this branch of manufacture is of immense importance to Ireland, as it will afford employment for the young female population. We have personally visited these establishments, and can bear witness that this employment is equally sought, and that the girls are industrious, docile, and well-conducted. An interesting anecdote may be related respecting the introduction of the Belgian lace. When it was first urged as a desirable experiment, no man of capital could be found to undertake the risk. At length, the sisters of one of the convents took the matter up, negotiated for a clever instructress, and brought her over, as we have stated, from Belgium. Singular enough, the lady who was selected would not come but on the condition that she should be admitted a recluse. As this was contrary to the rules of the convent, a dispensation had to be obtained. Specimens of this beautiful fabric, known as the Limerick lace, were shown in the Exhibition. It is this feeling of active benevolence, which animates all hearts and every communion, which gives us the strongest reason to hope that a brighter day will yet dawn on the sister-land—when famine and despair shall no longer tempt to crime—when the Irish peasant shall be as industrious and as prosperous in his own land as he invariably is when exiled from it. Hitherto, indeed, the female part of the population have been most successfully employed; and it is to their works we are now desirous of drawing attention. The branches of industry practised in the female schools, and at the cottages of the peasants, include almost every kind of useful and ornamental work. Lace of various kinds, knitting, netting, crochet, tatting, and embroidery, form the decorative portion; and there are also specimens of exquisite plain-work, stocking-knitting, &c.

Limerick lace has been celebrated for more than 300 years; but it was not until the present century that it became an article of commerce. Now, however, there are between six and seven hundred hands employed in Abbey-court factory alone. This establishment belongs to Messrs. James Forrest and Sons—a firm celebrated particularly as being the first to intoduce into Ireland the manufacture of the Guipure lace. Of this lace there were many most beautiful and elaborate specimens in Messrs. Forrest's case in the Great Exhibition. It is termed the Royal Irish Guipure, having been worn

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LACE MAKING.

Engraved by T Hollis from a Daguerreotype

by her Majesty on many public occasions. Before speaking more particularly of the various articles exhibited by the Messrs. Forrest, it may perhaps be acceptable to some of our fair readers to notice briefly the different kinds of lace which are now commonly worked. Of these, the antique point is the most valuable, which was worked entirely by the hand, in various complicated stitches, on a foundation of braid, tape, or muslin. So durable is this lace, that in many families it has descended from one generation to another for hundreds of years; and we have heard of a family that still possesses the point-lace collar in which Sir Walter Raleigh was presented to Queen Elizabeth. A large portion of this lace was worked in convents, particularly in those of Spain; and, to this day, Spanish point bears a very high value. Italy, also, was prolific in such convent-productions: witness the shops of the Jews in the Ghetto at Rome, which are so frequently visited by our fair countrywomen abroad, in hope of obtaining from their dark recesses a portion of these valuable relics. Much of this lace was originally employed for decorating the vestments of priests, and other purposes connected with religious ceremonies; hence, during the great French revolution, when the churches and convents were pillaged, large quantities of lace, which formed part of the ecclesiastical treasures, were stolen from France, and gradually found their way to the hands of the Jews, with whom the greatest trade in antique point-lace still remains. The sisters of mercy at Kinsale, sent a case containing altar-cloths, richly embroidered, an infant's robe with fine knitted trimmings, and other elaborate articles. The object of the exhibitors was to obtain employment for the poor. "At a considerable expense," they tell us, "they have procured teachers of Limerick lace from the factories, and have also introduced various other branches of industry, such as plain work, knitting, netting, crochet, embroidery in cotton, silk, braid, &c." A small case attracted considerable attention from the curious in these matters, as containing very elaborate articles in the newly-revived work termed tatting, or frivolité. These, also, were the work of poor Irish children, under the tuition of the benevolent Miss Sophee Ellis, of Kildemoc, Ardee. Many of those now employed by this lady were common beggars; and now, through her exertions, aided by the patronage of her Majesty and many of the Irish nobility, fifty people are kept constantly employed, and are supplied, by the profits of their own labours, with the comfort of a home, and food and clothes. To the credit of this estimable lady, we may tell our readers, that she herself undertakes all the teaching of the poor girls, in order that the salary of a hired mistress may not be deducted from the price paid for the work.

Several objects of equal curiosity and elegance next demand attention. A shawl, manufactured from the fibres of the common nettle, with a rich embroidered border, a crochet sleeve-trimming, a beetle-wing dress, a knitted lace shawl, a knitted parasol, flounces and bonnets, lace berthas, and veils *ad infinitum*, elicited many an admiring glance and rapturous exclamation from the crowds of fair visitors who thronged "from morn to noon, from noon to dewy eve," these hallowed precincts. Were we to enumerate a tithe of all their attractions, we should require far more time and space than we can at all conscientiously bestow. We must, therefore, hasten from the temptation before us, and proceed to notice the more imposing, though not more important works, of Mrs. Jackson, of Curzon-street, whose rich embroidered table-covers, adorned with pearls and gold-thread, were worthy to grace the banqueting-room of an eastern monarch. A state-chair and banner, exhibited by Jancowski, of York, were splendid specimens of embroidery in silks, gold, and silver, on very rich crimson velvet. We must leave them, however, with this brief word of praise, and proceed to notice the labours of the Moravian establishment at Ockbrook, near Derby; they consisted chiefly of ornamental mouchoirs, which, from the nature of their adornment, exhibiting royal crowns and princely names, and loyal mottoes in vast abundance, might well deserve the title of imperial handkerchiefs.

Many other meritorious names and elaborate productions solicit attention. We must content ourselves, however, with a brief reference to a few of the most important, among which are to be recorded those of the fair *artistes* Purcell, Danby, Vokes, Roome, and Blackburn, whose carpets, table-covers, trimmings, braids, and imitations of engravings in needlework, demand our especial commendation. As a work of art, the large folding-screen which stood on the bridge of the gallery, merited notice for its excellent effect, and commendation for the skill and patience which must have been exercised by the fair worker in producing it. This screen was in four compartments, and worked throughout in tent-stitch, on canvas. As it was upwards of six feet high, and the leaves proportionably wide, some idea of the labour required to produce it may be obtained. It was the work of a young lady who is now a nun in the Convent of Mercy, St. John's, Birr, Ireland. At the time of working it, however, Miss Mary Anne Becket was engaged as governess in the family of Mr. Greene, of Lichfield, and it occupied her leisure hours during two years. The centre of each compartment had a brilliant group of flowers, or flowers and birds, worked from a Berlin pattern. The colours were well chosen, and equally well worked; but the part of the screen best deserving of attention was the very curious grounding, which was drawn upon the canvas by Mr. Greene, from a piece of old Chinese embroidery. The chief colouring of the ground was an olive-brown, with lighter shades of the same thrown in with considerable artistic effect—with flowers, birds, and branches of trees, in those peculiar dead hues to which the Chinese are so partial, and which give to their drawings, work, and earthenware such a very unnatural appearance. As may be supposed, this strong contrast between English and Oriental taste produced a peculiar, but certainly not an unpleasing, effect.

This screen, however, was one of those immense pieces of work which every one must admire, but few would be inclined to imitate. The next cases to which we will turn our attention, were entirely filled with elegant articles in lace-work, not one of which required any great amount of that much-belauded virtue, patience. We, therefore, commend them especially to the attention of our fair compatriots, believing that nine-tenths of them would, like ourselves, echo Alfieri's observation—"*Pazienza! Virtu denominata, ma specialmente all'asino accordata.*" At all events, many of the articles we have hitherto noticed demand a large outlay of money as well as of time; whereas scarcely one of the pretty pieces of lace in the two cases now under discussion would cost more than a shilling or two for materials, whilst the value of some of them, when worked, would not be less than several guineas—a great consideration with the thousands of young ladies who have more leisure than cash.

Mr. Gould's case contained a great variety of collars, sleeves, chemisettes, berthas, and other articles, in a style of braiding on bobbinet which the exhibitor terms "Royal Victoria Lace." The braid is not, however, a new article, but only a revival of the kind which used to be called Adelaide or Coronation braid—a material which produces a pretty imitation of satin-stitch with very little trouble. The mode of doing it is, to draw the pattern on tissue-paper, over which the net is to be tacked; the braid is then laid on, and sewed at all the thin parts; for it is alternately thick and thin. The edging of all the Victoria lace is of coarse tatting or frivolité, with a picot on every stitch. Of course, this kind of lace, although pretty and effective, has not any very great intrinsic value.

The beautiful muslin embroidery, the work of the peasantry of Scotland and Ireland, was deserving of especial attention and praise; as were also the exceedingly ingenious productions of Mrs. Anne Ward, of Coleraine, in the Emerald Isle, who exhibited very accurate imitations of line-engravings, produced in cotton and silk, on a back, composed of lute-string or linen. The most interesting among these, was a view of the Giant's-causeway, which gave a good idea of the massive rocks and bold headlands of that singular

spot. This piece of needlework was altogether Irish in design and execution, being worked in Ireland by Irish fingers, on Irish linen. The original sketch was taken by an Irish lady, and the engraving brought out by an Irish publisher; the frame was also made of Irish oak, which once formed part of an old church in the vicinity. The print had been frequently compared with the original, and was strictly correct. A curious counterpane of mosaic needlework was exhibited by John Brayshaw, of Church-street, Lancaster—a work of immense labour, representing, in compartments, forty-four popular prints, the whole being done in cloths of different hues, without the aid of separate colouring. A handsome scroll formed the border. A very artistic piece of needlework was exhibited by an amateur, Lady Griffin Williams; it was a copy, in wool and floss-silk, of the celebrated painting of the Last Supper, by Leonardo Da Vinci. Various other amateur productions, from the fairer sex, we should here describe, did our limits permit us to do so: one among them, however, we cannot forbear to mention; it was entitled "The successful Deer-stalkers of the Highlands," and was the work of Miss Hayes, of Richmond-terrace, Walworth. It was executed almost entirely in seed-beads, and bore so close a resemblance to an oil picture, that it really required a very near inspection to determine that such was not the case.

From these laudable efforts of our fair countrywomen, we now turn to the productions of the needle, in equally skilful hands, from other parts of the globe; and first we shall bestow our meed of approbation upon the embroidery of Austria, as exhibited in the rich ecclesiastical vestments that were displayed by her, among which, the dress of a priest was most conspicuous for its costly magnificence. Among the artistic attempts in needlework, we may mention two copies of engravings by Marie Benkowitz, of Vienna, and several magnificent displays of the arms of England, in rich embroidery. A carpet of Berlin-work, belonging to an English lady, excited a good deal of attention from its historical interest, having been begun for Napoleon, by the Empress Maria Louisa, assisted by the Queen of Wurtemberg and several noble ladies. Begun whilst Napoleon was in the zenith of his power, in 1811, it was not finished for eight years after his death, and then not by the hands that commenced it. Our American brethren sent marvellously little needle-work to the Crystal Palace, and that little of but inferior quality. The native Indians, however, contributed a case of curious specimens of their ingenuity—articles of attire, &c., ornamented with porcupines' quills and beads. From Canada, also, a Red Indian dress, the costume of the Ojibbeway chief's daughter, excited a good deal of curiosity. The whole dress was made of cloth and ribbon, by hand; the figures, flowers, and other ornaments, were cut out with scissors, and sewed on with ravellings of the cloth: it was a very close imitation of the porcupine-quill work, and must have required great patience and ingenuity to execute it.

Switzerland, as we believe we have before observed, claims undisputed pre-eminence in muslin embroidery. But Germany has a walk of its own, at least as admirable as that of Helvetia. Gold and silver embroidery on velvet and leather, Berlin-work and bead-work, are found in perfection in the various states—a fact which will not greatly surprise our fair readers, when they recollect that the very *name* of our embroidery on canvas, is derived from the capital of Prussia, where all the first, and, to this day, the best patterns are obtained. Among a variety of articles displayed, the most conspicuous, both for size and beauty, was a carpet sent by Kœnig, manufacturer to the Queen of Prussia and the court of Berlin. It was worked expressly for the Exhibition, from designs made for that purpose; in the centre was a view of Buckingham Palace, and in the four corners were views from different parts of the globe. Various other elaborate articles were exhibited by Herr Kœnig—many landscape achievements in silk and woollen—and many intricate patterns and designs, and dainty devices from the ladies of the Zollverein. To some of

the sterner sex it may seem as if the time thus spent in occupations of no absolute practical utility, might be more beneficially employed. But let us not forget that the needle is a powerful weapon to brandish against ennui, that most insidious of demons, whose torpedo touch so often neutralises the enjoyments of the rich. Dr. Johnson reckoned needlework one of the greatest privileges, as it is undoubtedly one of the greatest resources of the fair sex; nay, he even gave it as his opinion, that many a man would have been spared from suicide if he had known how to hem a pocket-handkerchief; and a lady whose excellent writings have been more especially devoted to the "Women of England," expressly says on the subject in question, "Ladies must have something to do; and the happiness that people, who would otherwise be idle, derive from their *worsted-work,* is beyond all belief to those who have never known the difference betwixt that and total idleness." But we must not ourselves wander any longer among these dreamy delights. If we have trifled too long with the distaff of Omphale, we know where to look for forgiveness—at any rate, we can shelter ourselves under the authority of the poet—

"Dulce est dissipere in loco."

CHAPTER IX.

GLEANINGS AND REMINISCENCES—*continued.*

SHELL-FLOWERS — EXTRAORDINARY CLOCK, BY LOVELACE — DISPLAY OF SCISSORS — SPLENDID STATE-BED — GORGEOUS INDIAN BED — VARIOUS SPECIMENS OF LABORIOUS, TRIFLING, AND MISPLACED INDUSTRY, ETC.

As the husbandman, after he thinks he has carefully transplanted the whole of his crops to his store-houses or barns, still, day after day, in retracing the furrows he has so lately despoiled of their waving harvests, sees many a scattered ear remaining to reward the patient search of the gleaner, so do we, on retracing the fields of our memory, find many an object still left unmentioned in the treasures of art and science we have been describing, which, though perhaps of minor importance, are still worthy of being gathered up;—some deserving "honourable mention," from the peculiar circumstances under which they have been executed—others from their ingenuity or utility—others compelling attention on the score of their whimsicality—nay, some even from (if we may take the liberty of saying so) their absurdity.

In the first class of these applicants we will mention a "vase of shell-flowers," by Elizabeth Jackson, of Southport, which we should have been sorry to have found, upon a retrospective view of our labours, we had left unnoticed. The fabricator of this exact and elegant imitation of nature, was a poor woman, upwards of forty years of age, who formerly laboured, for years, far below ground in a coal-pit. She had the misfortune to fall down the shaft a great depth, and sustained severe and lasting injury. Subsequently, she married a poor fisherman of Southport, and is the mother of eleven children, eight of whom are still living and around her. Her first attempt to contribute to the support of the family was, by making little models of cottages, churches, &c., and adorning them with sand and shells, gummed upon the surface. With the money thus earned, she tried to form shell-flowers, but only in a small way, with limited means and very imperfect materials; till, one day, her husband came home after a severe storm, and mentioned that he had found and left on the beach a branch of a tree covered with what

he called "barnacles" adhering to it. She requested him to bring it home, as she thought she could make something of it. She found the shells to be of a kind offering excellent material for the construction of flowers. Each pair (bivalve) consisted of two large and two smaller overlapping plates, and one long, taper, proboscis-like filament of shell. These her husband procured for her in large quantities; and having cleansed them and made them beautifully white, this ingenious and wholly self-taught artist proceeded to construct flowers from natural models, with a taste and judgment most extraordinary in a poor fisherman's wife. A person seeing some specimens of her skill, ordered several more, which were to be of the most elaborate character, as they were destined for the Great Exhibition. She completed them; but learned, to her great disappointment, when delivered and paid for, that the purchaser deemed them his own, and positively refused to attach her name to them. It was then too late for her to commence afresh and complete any considerable work within the limited time remaining; but Mr. B. Fothergill, being at Southport, and learning her story, wrote to Mr. Thomas Bazley, detailing the circumstances, and through that gentleman's representations to his colleagues, the royal commissioners, he succeeded in obtaining special permission for a piece of this curious shell-work to be received later. In the porcelain vase were grouped together a collection of exotic and other choice flowers, mingled with wild flowers, and the blossoms of some of our flowering plants, trees, and hedges. The foot of the vase was encircled with a simply elegant wreath of the hedge or briar-rose. The stems and leaves were procured from the makers of artificial flowers in London; and the artist had also procured thence the flowers with so much delicacy and accuracy as to make them closely resemble nature.

We next proceed to notice a singular clock from Exeter, the history of which is best given in the account inscribed upon the article itself, which we accordingly transcribe: —"The world is indebted for this wonderful production of ingenuity, perseverance, and mechanical skill, to Jacob Lovelace, born in the city of Exeter, who ended his days in great poverty in that city, aged sixty years, having been thirty-four years in completing it. This beautiful specimen of mechanism was enclosed in an elegant cabinet, ten feet high, five feet wide, and weighing half-a-ton, ornamented with Oriental figures and finely-executed paintings, bordered by richly-carved fret-work. The movements were—1st. A moving panorama descriptive of day and night. Day was beautifully represented by Apollo in his car, drawn by four spirited coursers, accompanied by the twelve hours; and Diana in her car, drawn by stags, attended by the twelve hours, representing night. 2nd. Two gilt figures in Roman costume, who turned their heads and saluted with their swords as the panorama revolved, and also moved in the same manner while the bells were ringing. 3rd. A perpetual almanac, showing the days of the month in a semi-circular plate, the index returning to the first day of every month, on the close of each month, without alteration even in leap-years, regulated only once in 130 years. 4th. A circle, the index of which showed the day of the week, with its appropriate planet. 5th. A perpetual almanac, showing the days of the month, weekly, and the equation of time. 6th. A circle showing the leap-year, the index revolving only once in four years. 7th. A time-piece that struck the hours and chimed the quarters, on the face of which the whole of the twenty-four hours (twelve day and twelve night) were shown and regulated; within this circle the sun was seen in his course, with the time of rising and setting, by an horizon receding or advancing as the days lengthen or shorten, and under was seen the moon, showing her different quarters, phases, age, &c. 8th. Two female figures, one on each side of the dial-plate, representing Fame and Terpsichore, who moved in time when the organ played. 9th. A movement regulating the clock as a repeater—to strike or to be silent. 10th. Saturn, the god of time, who beat in movement while the organ played. 11th. A circle on the face showed the names of eight celebrated tunes,

played by the organ in the interior of the cabinet every four hours. 12th. A belfry with six ringers, who rung a merry peal *ad libitum*. The exterior of this part of the cabinet was ornamented with beautiful paintings, representing some of the principal ancient buildings of the city of Exeter. 13th. Connected with the organ there was a bird-organ, which played when required."

The old story over again. A poor, persevering, original, enthusiastic genius perfects a work—the work of a life-time;—but his efforts are profitless, and himself disregarded. And so, after having wasted his talents in misdirected efforts, and having failed to calculate the end, he suffers, and at last dies! Peace to his manes! Hunter Edwin, of Broomhall-street, Sheffield, exhibited a display of scissors, in a glass case four feet six inches by five feet six inches, with a carved oak frame, containing 230 pairs of scissors, of every size and pattern, grouped and mounted upon a white ground. The centre object was a pair of huge scissors, twenty-two inches long, the bows and shanks representing in outline two crowns, the upper one surmounted by a thistle. All the ornamental work was wrought with the file, some portions of the surface being chased. This object was by far the most expensive pair of scissors ever produced in Sheffield. On each side of these appeared another pair. One pair represented, in chasing, the bruising of the serpent's head; in the centre was wrought out, with the file, the prince of Wales's feathers; and the bow was constituted of the emblematic group of the shamrock, rose, and thistle, and some curious scroll-work, all wrought out with the file. The department conveying the greatest amount of instruction to the general spectator was in the left-hand lower corner. It illustrated the process of the scissors' manufacture in ten distinct stages, from a plain piece of steel to a finished pair of ordinary barber's scissors. Over these objects there were specimens of print, woman's, shaping, drapers', and nail-scissors, all glazed; a pair of dandy's whisker-scissors, with a comb fabricated at one side; a variety of lamp-scissors, vines, flower-gatherers, pruning and slide pruning-shears, and horse-trimmers, all with very long stems; massive tailors' shears, and American ditto. The right-hand side of the case was headed with specimens of fancy shaping and bankers' paper-scissors, hair and nail-scissors, and a great variety for gentlemen's dressing-cases. In the centre of this side, the most striking object was a pair of sixteen-inch fancy nail-scissors, ornamented with etching; these, as their immense size suggested, were designed only for show. Beneath them was a group of surgeons' scissors, curved, angular, and distorted into every imaginable shape, for difficult operations. Included in the foregoing were all the ordinary and most useful varieties. The remainder, comprising about one-third of the whole collection, were all more or less ornamented with the file and the process of chasing. Amongst them were a complete set of ladies' chatelaine scissors, and about a dozen pairs representing different kinds of birds, the blades being the bill, the stems forming the legs, and the centre representing the body. There were also fifteen pairs of ladies' scissors, representing effigies of the eagle, swan, peacock, pheasant, butterfly, &c.; besides a lot of fancy shaping and miscellaneous scissors. All the interstices were filled up with an endless variety of useful ornamental scissors, including some of the smallest kinds used by artificial fly-makers. Amongst the curiosities there was a pair of scissors which, when closed, were exactly in the form of a dagger, and the joints were so delicately finished, as to be quite imperceptible. Another pair represented "The Iron Duke" on horseback, in military costume.

In our last chapter, we unaccountably omitted, in our description of needlework, to notice a work which might well emulate the labours of Arachne herself, the web of Penelope, or the needle of Proserpine; the wonders effected by which, as they are related in the glowing verse of Claudian, are doubtless in the recollection of some of our fair readers. We hasten to notice this "gem" (as it may be termed) of female industry and skill—we mean the

splendid *state-bed,* prepared especially for exhibition by Messrs. Faudell and Phillips, of Newgate-street. In this exquisite specimen of needlework, thirty young Englishwomen were employed for upwards of ten months, under the direction of M. Boiteux, from whose designs the whole was completed; and it was highly creditable to the proprietors, as a good specimen of the present state of fancy needlework and embroidery in England—a specimen which may well compete with the most finished productions of ancient or modern days. In viewing the bed from the foot, the nearest subject was the celebrated painting of "Aurora," copied from the picture by Guido Reni, in the Rospiglioso palace at Rome. This foot-board was worked on the canvas direct from the picture, without any portion being made into a Berlin pattern set in a square design, or any other mechanical contrivance for simplifying or facilitating canvas-work. It was in "tent-stitch," on fine canvas. All the wool (which was four-thread) had beeen split; and to obtain many of the tints it had been found necessary to twist two single threads, of different colours, into one; nevertheless, 700 shades were used. To those accustomed to this description of needlework, the artistic skill required to overcome the difficulties need not be enlarged upon, especially when the working *directly* from a picture is taken into consideration, which in this case was invariably done by the female *artistes.* In this piece alone there were upwards of 1,600,000 stitches!

The "tester, or head-piece," was worked in cross-stitch, gobelin-stitch, and raised-stitch, with wool (the latter being afterwards sheared), silk, twist, and chenille. The centre was Thorwaldsen's "Night," copied direct from a model, also without the intervention of a squared design, and is believed to be the first and only attempt made to use statuary and other fine arts as patterns for needlework. The bas-relief was suspended from a wreath of flowers, selected from all nations, tied together by laurels, palm, and myrtle, emblematic of peace. The fruits and bread-stuffs of the world united were in raised work at the side, and copied from Raffaelle's ornaments in the "Loggie" of the Vatican, but grouped so as to be appropriate to the present subject. The scroll was of the same character as the bedstead; and into the whole design no less than fifty-one different flowers, fruits, and products, were introduced. The upper valances, or hangings, were worked on canvas, entirely with silk chenille, manufactured in Spitalfields expressly for the work, representing on a flat surface the folds of velvet draperies supported by cords, and a garland of poppies (*grande flora papavera*) of Asia, emblematic of sleep. The ceiling and cornices were "cross-stitch" wool and chenille; the subject was "Angels watching and holding wreaths of roses over the sleepers." The curtains were of white watered Irish poplin, with blue satin stripes, worked in silk crochet twist, made purposely—the design so arranged as not to show any join—each curtain being twelve feet by nine. The counterpane was a junction of all the kinds of work employed; the material of the top the same as the curtains; the embroidery known as "passings;" while the flowers were "beaded," and worked with chenille. The sides were made to correspond with the hangings; the gimpe, chenille, fringes, &c., all having been produced at the establishment of the exhibitors. The bedstead, which was richly carved and gilt, was in the style of Louis Quatorze; and the whole of the materials employed in the construction of this splendid object were of British manufacture. As a specimen of what may be accomplished in this description of work, it was worthy the highest commendation.

We must, moreover, not omit the mention of a piece of what we may call barbaric finery, as exhibited in an opera-cloak, composed of fine white wool, worked into small diamond-shaped cells, with 1,200 gold pendants, of various sizes, one at the point of each alternate cell. The lining was quilted with an emblematical wreath of the United Kingdom; and in the centre was a figure of Britannia. Altogether, it struck us as

admirably fit for a court-dress for the consort of Prince Voltiger, who, as the poet tells us—

> "———— A painted vest had on
> Which from a naked Pict his grandsire won."

In commemoration of unexampled rapidity of manufacture, we observed an oil-painting, representing Sir John Throgmorton presenting two Southdown sheep to Mr. John Coxeter, of Newbury, Berks, who, in return for the compliment, had the sheep immediately shorn, and the wool sorted and spun. The yarn was spooled, warped, loomed, and woven. The cloth was burred, milled, rowed, dyed, dried, sheared, and pressed. The cloth having been thus made from the fleece in eleven hours, was put into the hands of the tailor at four o'clock in the afternoon, who completed the coat at twenty minutes past six. Mr. Coxeter then presented the coat to Sir John, who made his appearance in it to a large number of spectators. Among instances of misplaced labour, we would mention a "Descent from the Cross"—the outlines taken from an old print; the copy made with steel and crow-quill pens, and Indian-ink, and occupying ten weeks of responsible existence. We are informed that each cheek took 2,000 strokes of the pen, imitating line-engraving. We can only say, that, in compassion to the artist, we should prefer the line-engraving itself. But what shall we say to the next wonder we proceed to enumerate in the catalogue of trifles? We allude to the empty shell of a hen's egg, pierced with seventy holes about the size of a pea, in imitation of the Chinese ivory balls, by J. W. White, Esq., of Montague-square. This gentleman did not inform us how many eggs were cracked or broken before he attained the degree of perfection in the art of perforation which he deemed worthy of exhibition, and for which we should have awarded him a dozen eggs, of the same size as his model—according to the example of the monarch, who, after witnessing the adroitness of one of his subjects, who, by long practice, was enabled to perform the feat of throwing a grain of barley through the eye of a bodkin, ordered him a bushel of it for his pains. We will not be quite so hard upon the production of a lady in somewhat the same line; viz., fancy pincushions, match-boxes, porter in his lodge, cradle, &c., manufactured from common egg-shells. On the contrary, we will pay her the compliment of transcribing the note appended to the mention of her workmanship in the official catalogue: — "The employment of egg-shells for ornamental purposes is extremely ancient. A MS. in the Harleian collection represents a number of egg-shells, ornamented in the most elegant and costly manner: miniatures were often painted upon them with extreme care; and egg-shells, thus curiously decorated, became valuable and highly-esteemed presents. In Venice, young noblemen frequently lavished large sums of money upon portraits painted within egg-shells, intended as presents."

The Russian *bulwarks*, dedicated to the service of Morpheus, we have already noticed: like everything else that emanates from that stupendous country, they were *grandiose* and imposing. Of a more light and elegant character was the splendid couch of repose in the Indian department, which we shall forthwith describe, in order that our fair readers may compare it with the work of their sisters at home. This magnificent bed stood in the centre of the gorgeous compartment, to which it lent additional splendour. The bed was of the light character suited to an eastern climate. The material of its framework (slight, but strong, and comprising six side-posts and two end ones) was wood, completely covered, however, with metal—richly-ornamental platings of gold and silver; the posts were exquisitely enamelled; the mosquito curtains were of gauze-like muslin, embroidered in gold; the thin mattress and cushions of purple velvet; and the tops of the pillars surmounted with ornamental work, illumined with brilliant emeralds. Its cost was £800.

BELGIUM
BELGIUM

In reverting once more to the subject of needlework (we trust our fair readers will excuse us for so doing), we ought not to pass over the industry of a good little girl, fourteen years of age, who favoured us with a crochet bed-quilt, with the ten commandments in the centre. A more ambitious display of learning—joined with industry—was made by Eliza Sutton, of Maidstone, in a crochet bed-quilt, the centre of which exhibited a group of flowers; above them, three scriptural sentences—in English, French, and German; below, three others—in Spanish, Italian, and Latin; a scriptural sentence in English at each side; and the borders enriched with dates, and allusions to the Great Exhibition, in the mother-tongue. We should recommend that a lamp be kept constantly burning by the side of the bed, in order that its occupiers might (in case of insomnolency) turn the time to profit, by translating and transposing the various languages at their finger-ends. The unassuming boast of another of these crochet performances was, that it contained 425 invisible joinings without a knot. A quilt of patchwork, in 13,500 pieces of silk, satin, and velvet, by Maria Johnson, of Hull, redeemed, by the elegance of its design, the apparent waste of time in putting the multitudinous materials together. We would fain extend the same meed of praise to a bonnie Scot, of the name of Johnstone, who, it appears, devoted the leisure hours of eighteen years to the concoction of a table-cover, consisting of 2,000 pieces of cloth, from which he arranged twenty-three historical and imaginary characters, six equestrian scenes, a fox-hunt, and a pantomime, crowning the whole with the regalia of Scotland in the centre. Another article connected with Scottish history amused us by the title—"Mary, Queen of Scots, mourning over the dying Douglas," in Berlin-wool. Another extraordinary production in needlework was a set of chess-men, dice, and board; the men being clothed in silk, in characteristic costume; the pawns representing the gentlemen of her Majesty's body-guard of gentlemen-at-arms, in their uniform. King James stigmatised the noble game of chess as a philosophic folly. We do not think this performance would have raised it in his estimation.

CHAPTER X.

PROVINCIAL VISITORS—A RETROSPECT—TRAVELLING, OLD AND NEW—THE LOUNGER AND THE ARTISAN—FIVE-SHILLING DAYS AND ONE-SHILLING DAYS—ST. JAMES AND ST. GILES, ETC., ETC.

The sight of the multitudes daily brought up from the provinces for one brief visit to the Exhibition, and that over, taken back to their homes, was one to excite profound interest and even anxiety. The mere possibility of the thing is a new feature of our times. It is but forty years since Napoleon was astonishing the world by the rapidity of motion he could give to large masses, and by the sudden concentration of widely-scattered forces; yet Napoleon himself would have been staggered by a proposal to place 50,000 persons at their ease in one building for five hours, all of whom had breakfasted at home, a hundred miles off, and would sup at their homes in the evening. If that was not actually done, it was, at least, proved to be possible; for many thousands present in the Exhibition from before twelve till after four o'clock, accomplished that feat. All great movements of mankind have hitherto been tedious, difficult, costly, and even disastrous. The march of armies is more fatal than the field. The path of pilgrims is beset by the spoiler, by famine, and by disease. The festival of Jaggernaut generally

concludes with a pestilence. Of the Crusades, but a fraction reached the Holy Land, and scarce even a fraction of them ever returned. It is the direst distress only that drives our own population to fly across the Atlantic; and we have not yet seen the end of that movement, or all its results. In the Jewish polity, the terrors of heaven were put in force to protect the houses of those who might attend the annual feasts, and to secure for them a hospitable reception in the Holy City; but after all, the burthen proved too heavy for them. It has lately been shown, with some historical research, that unusual assemblages have generally been followed by great moral or physical disorders; and every body's own experience will supply some melancholy proofs that a fair, a town *fête*, a holiday, or even a numerous family meeting, may not be without sacrifice. It was, then, a new phase in the history of the world, that a large army—larger than any body of Englishmen ever gathered in battle array—should have been assembled from distances varying from a long walk to a hundred and fifty miles, and sent back again, day after day, for many weeks together, with very great security and comfort. The simple fact cannot but suggest some grave reflections. What will this grow to? What will this new relation between the metropolis and the provinces do for them both? How will the national character be affected? What is done one year may be done every year; and, when the system of excursion-trains is considered, there is every probability that what we have beheld is only the beginning of a national practice.

If it had not been presumed that practice leads to improvement, if not to perfection, we confess that such vast assemblages might have excited a painful degree of compassion. Compare the case of a gentleman living within sight of the Exhibition, and taking season-tickets for the chief part of his family, with that of the Lancashire artisan, who brings up his wife, his two eldest children, and the youngest (because it cannot be left behind), for a visit, once for all, of four or five hours. The former is a man of extensive information and cultivated taste: he is practised to observe, to understand, and to remember; there is not an article in the Exhibition but he has long been familiar with others of its kind: he has had abundant opportunity of following the progress of the work and of anticipating what he is to see: two or three times a-week he walks in at his leisure, and directs his attention to this or that section, with nothing to hurry or distract him. After a dozen such visits, and with the advantage of daily conversation with intelligent friends and his own family, he is sensible of learning something; and whether he learns or not, he is conscious of a useful and laudable enjoyment. In the case of the artisan all this was reversed. He was tied to one day, which might prove rainy, cold, and dark. He must get his party under weigh at six in the morning. For more than four hours they are exposed to the discomforts of a cheap train. From the station they have to get as they can to the Exhibition, and most of them had to do it on foot. Five hours were the utmost allowed them to scan the outside of the building; to satisfy their eyes with the first burst of the interior; to recover from their amazement; to traverse the two sides of the nave, the transept, the two aisles, and the four galleries,—a walk of three miles; to peep into the principal courts; to examine an acre of machinery; another acre of agricultural implements, and several others of raw material; to look at about a hundred objects of more than common magnitude or beauty, occupying the principal points of the area; to suffer many interruptions; to meet acquaintances; and to sustain the drooping and wearied spirits with a homely meal. All this to be compressed within the limits of five hours, and within the capacity of a man who knows but little out of the range of his special employment. Then comes the hurry to the station—perhaps through the rain and mud—a cold, weary journey, with heated bodies and damp clothes, a night, we will hope, of deep slumber, and a return the next day, or the day after, to the usual routine. Such was the provincial artisans' brief and painful glimpse of the Great Exhibition, and consi-

dering his circumstances, a very costly one. Of course it will not be denied that there was something in such a spectacle to enlarge and elevate the mind, and that it was one that must have indelibly impressed the senses, if seen but for a few minutes. There are objects which, if once seen, affect the mind for ever. Ten minutes' sight of a splendid landscape, or a magnificent cathedral, leaves a vision of beauty that the mind can always recur to. Even a display of fireworks is never forgotten. Any striking incident, any moment of danger, or any novelty of circumstance, leaves a new idea on the mind. Seville, they say, in Spain, is a place to see and die. The Jewish lawgiver was allowed one gaze at the land he had lived for; the apostle had a glimpse of the third heaven; and Dante, it was said, had seen hell. One sight of a great thing is something; but nobody will be content with one sight, if more is in his power. The painful contrast we have drawn between the benefits offered by the Exhibition to the holder of the season-ticket, and what it affords to the Lancashire excursionist, prompts the inquiry whether more may not be done. How far may these visits be repeated or prolonged? If it is possible to bring up so many thousands from such a distance in a few hours, is it not equally possible to house and board them for a few days? Some large buildings, we know, have been constructed for the purpose. How long can the Exhibition be continued,—of course in a less costly and complete form? To what extent may it be taken down to the country—that is, how far is it possible to have similar exhibitions in a greatly-abridged form in our leading provincial towns? These are questions that occurred with increasing force to all who compared the grandeur of this undertaking with the very small edification that a vast majority of the visitors were able to derive from it. The able and enterprising men who so successfully surmounted the difficulties of the Great Exhibition, have now followed up their own example in a much grander form, sufficient for the permanent benefit of the people at large. Let us, however, in the meanwhile continue our remarks, and take a peep into the building during the five-shilling days and one-shilling days:—

"The day of the great folks, and the day of the little folks—the day of the peach-coloured *visites* and the gaudy mousselines de laine, and the day of the cotton prints and the handkerchiefs at 1*s.* 11¾*d.*—the day of the shiny boots, and the day of the ankle-jacks with hob-nails—the day of the newest palletot, and the day of the most primitive smock-frock—the day of vanille, ices, and wafers, and the day of hunches of crust, lumps of meat, and liquid refreshments in small bottles—the day of languid lounging and chatting, and the day of resolute examining and frank amazement—the day of the west-end of London, and the day of all the other ends of the earth—the five-shilling day, in fact, and the one-shilling day, come—pass each before us, with your votaries; exhibit each your phenomena and your usages; introduce us each to your train of company; tell us, each, your comparative value; read us, each, your separate lesson; for you have and you present, each of you—crown day and twelvepenny day—your distinct train of appendages and characteristics. Sunday in the world is not more unlike Saturday, than Saturday in the Exhibition is unlike Monday. On one day, society—on the other, the world. On the one day, the nave crowded in such fashion as opera corridors and Belgravian saloons are crowded, and the aisles and galleries empty. On the other day, the aisles and galleries crowded, and the nave a thoroughfare—a street—swarming, bustling, pushing with loud voices and *brusque* movements; and people who have sharp elbows, and can use them, and who push along as in Fleet-street or in Cheapside, intent upon going somewhere—determination in their muscles and purpose in their eyes—the energetic business-like march of this energetic, business-like nation.

"And first—as they have had their earlier innings in the great game of the Exhibition—we take the five-shillingers. On Saturday, St. James fairly ousts St. Giles; the latter

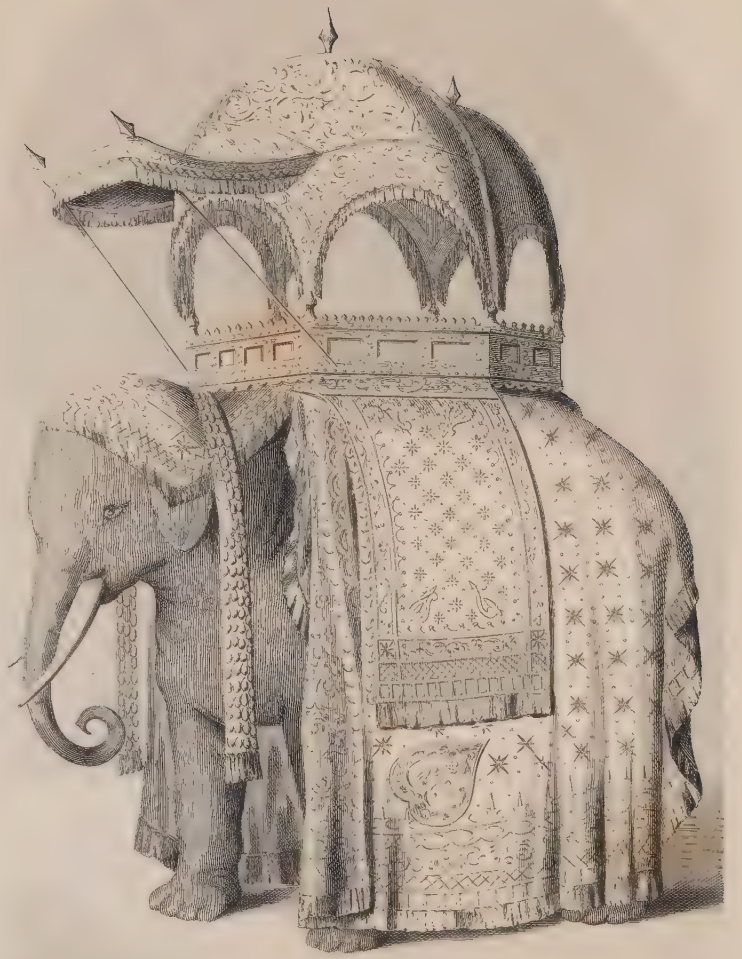
worthy, but unfashionable saint, taking, however, ample revenge on at least four other days of the week. As becomes his gentility, St. James, upon his particular morning, gets up late, and ringing for his valet, looks over the morning packet of cards and letters, announcing 'at home,' and, in the vernacular, 'dancing teas,' when, after profoundly meditating on how he intends to 'employ each shining hour'—whether he will lounge away the day in the club or the sweet shady side of Pall-Mall, or whether he has any pasteboards to leave, or whether he shall fly from the gauds of the world, which are vanity, and solace himself with a quiet stroll through country elms branching over the greensward, winding up with a dinner at the Toy or the Star and Garter, which is also vanity, but never mind that—the brilliant idea perhaps strikes him that he will order out his cab, or saunter across the park, and while away the hours in the 'Palace:' as he imagines, so does he act. Loungingly and listlessly does he mark that singularly tall flagstaff, with that very small flag—large pocket-handkerchief size—which graces or does not grace the southern summit of the transept. Loungingly and listlessly does he saunter across the magic threshold, and leave behind him the treasure of his autograph, in a beautifully-gentlemanly scrawl, backed by a high-life flourish or an aristocratic blot; and then, gazing around with a calm grace of patronising dignity, and an expression indicating that, 'by Jove, the thing is very well in its way,' he silently loses himself in the lightly rustling, and gaily but lowly-talking throng of promenaders. No eagerness, mark you; no flutter of curiosity; no immediate plunge into one of the departments, irresistibly seduced by malachite, or statues with lace on their faces, or beds which look like young cathedrals. Why, he has seen all these things before. He has not missed a single day, from that on which her Majesty walked forwards and the Lord Chamberlain walked backwards from England to Canton, and from Canton to New York, until—of course—until the irruption of the shillingers broke into what were becoming his daily habits, and for a space turned him out. Do not let us lose him, however. Mark how the saint, in his light paletot and glazed boots, saunters observingly through the perfumed throng. He has already nodded to a score of people, and said—'How do? Fine day!' to a dozen. Then he strays from party to party of the gayest lady-birds under the glass. He loses himself in the accustomed ocean of small-talk about balls, and parties, and concerts, and operas, and all the *piquant* scandal, and all the staler gossip of the great world. He wonders what they are going to do with the building; he wonders whether they will let people ride in it. He don't suppose they'll stand drags. He wonders if they'll keep the organs in, and the crystal fountain. He wonders where that sparrow is that they say is in the Exhibition. He wonders whether any new things have come in since last Saturday. He understands that So-and-so has purchased so-and-so, and that Thingamy has given an order for a duplicate of what's-its-name. He wishes that they had made the building all arched, like the transept. He'd have done it, if he had had anything to do in the matter. He finds it very hot; but believes they say it is hotter in the gallery; and wonders why Mr. Paxton don't find some means of cooling the air, icing the fountains, or driving a cold blast through the organs, or something of that sort. Now and then, with a couple of ladies on his arm, he may saunter carelessly into France or Austria, to see the prettiness of furniture and decoration. Lady Jane wants to look at a candelabrum for the dining-room in Park-lane; or the Hon. Mrs. de Smythe wishes to secure a glittering piece of *marqueterie* for the drawing-room in Belgravia or Tyburnia. In some case the jewellery has still lingering charms. The nose of the unhappy Koh-i-noor has been dreadfully put out of joint; but there are Hope diamonds and black diamonds, and marvellous emeralds and amethysts, which still reflect in their precious depths the translucent eyes which sparkle over them. Or does he—does mincing St. James encounter a county family 'up to the Exhibition,'

and naïvely staring and wondering at all around them, then, perhaps, he good-naturedly unbends, and for some brief space becomes pilot and Cicerone. He points out the geographical localities in which he is notably aided by the placards, and knows where the French room, the Gobelins, tapestry-room, and the Austrian furniture-room where the young cathedral is, and the mediæval-court, in which if, as is possible, he be affected with the moral and mental tinge which was once young-Englandism, he discourses with tolerable learning of ecclesiology, of vestments and stoles, screens and fonts, and becomes in his discourse highly picturesque and mediæval, to the great bewilderment of the county family, who don't in the least understand the difference between the early English and the *flamboyant* styles, and wonder whether the *Rennaissance* is anything to eat. And talking, by-the-by, of eating (or rather that genteel apology for eating which is provoked by ices and wafers), St. James and his kindred five-shillingers much affect the refreshment departments, where they lounge upon the softest benches getatable, and turn their stomachs into arctic regions, with small strawberry and lemon icebergs; or make the climate milder with floods of coffee, more or less sublimated by the chicory beloved of the chancellor of the exchequer. And so the day wears on. Nobody looks at anything in particular—unless it be somebody else. Ladies let the steam-engines alone, but criticise ladies' bonnets. Pretty things in handy places come in for languid inevitable praise. People ask whether they will meet other people at balls and operas in the evening. People point other people out. Here and there a single lady and gentleman wander cooingly down love alleys of broad-cloth, or streets of glittering guns and pistols—not, however, criticising the excellence of either. The sitters in the Bath chairs are almost the only active inspectors. Round and round they go, pushed by perspiring Frenchmen, and eagerly making the most of their limited time. They do not like to brave the grand crush, but wander in aisles and compartments, and continually pull up to gaze and admire. Meantime, the grand crowd still ebbs and flows, and circles round the fountains, and the statues, and the organs. Look at it from the gallery. What a glancing bed of peripatetic flowrets—pinks and roses, and lilies and carnations—all a-blowing, all a-growing, and, what is stranger still, all a-moving, all a-fluctuating, hither and thither in eddies and streams, and counter-streams—a kaleidoscopic *parterre* of bright hues and tints, shifting and blending, and intermingling like living shot-silk—the congregated essence of a half-score thousand male and female St. James's.

"But now for the shillingers. Now for sturdy St. Giles—whether from the town or country, whether he trudge Hyde-park-wise from the backwoods of Hackney, or the savage prairies of Walworth; or whether he come smock-frocked and hob-nailed from the agricultural districts; or whether a club and a cheap train have witched him for a day from his power-mule at Manchester, or his lace-frame at Nottingham, or his grindstone at Sheffield, or his anvil at Birmingham. Up, sturdy St. Giles, and see the work of men's hands—see what the toilers and the schemers can do, and give each the credit, finger or brain, which belongs to him. And St. Giles, whether agriculturalist or manufacturing—whether fresh from country hedgerow, or fusty from city lane—call up Mrs. St. Giles, and all the little St. Giles', not even forgetting the St. Giles in arms, who will alarm the whole parish if he be left alone, and who happily does not count at the shilling turnpike. Up with you early for the train perhaps, early for the walk, all in a flutter at the brave things before you. Don Sunday clothes, the cleanest smock-frock, the most resplendent velveteen, the palest corduroys, or, it may well be, the decent broad-cloth coat, not *distingué* perhaps in what St. James would call the 'tone'—but a proper garment, significant of self-respect and industry. And Mrs. St. Giles—thanks to the machinery which you are going to see—you have been able, at moderate cost, to dress Sarah, Jane, and Mary Anne out as brightly and as flauntingly, if not as richly, as ever a Lady Arabella or a Lady Blanche

of them all. To be sure, cottons from smoky Manchester print-works are not silks from Lyons' Jacquards; and it must be confessed, that there is a geographic as well as an industrial distance between Paisley and the Vale of Cashmere. Never mind: Coventry has sent its cheapest ribbons, and Nottingham its most economic stripes of lace; and you will play no bad part in the coarser, but not the dingier, flower-bed. And dinner—don't forget that. Cut the hunches of meat, and the hunches of bread—no Vauxhall sandwiches are these; and pack the sausage, or the bit of cold pie, or the slices of cold pudding, in that greasy newspaper; and stuff the bundle into the handkerchief, or the basket, and away.

"St. Giles is waiting at the doors long before the opening chime of ten has rung. He is there with his friends and his household—bundle in hand and shilling in hand; through the glass he catches devious glimpses of fairy-land. Mrs. St. Giles is sorely crowded upon, and 'squeeged' to an inch of her life, and the small St. Giles's go lost between tall people's legs. No matter. No one grumbles. Every one anticipates. Every one stands on his tiptoes—mental and material—until chime goes the magic hour, down fall the barriers, round rush the turnstiles, and the congregation of St. Giles's, masculine, feminine, and counting the babies, neuter, stand agape and wondering in industrial fairy-land. First, what a time of sheer pure vacant bewilderment: St. Giles has never heard the phrase *embarras de richesses;* but without knowing it, he feels its meaning—where to begin, what to look at first, what to look at most, what to look at the closest. He straggles mechanically into the transept. The eastern sun is flashing through the long avenues of glittering industry and art, over sparkling jewellery and god-like statues, and every trophy and every triumph of metal and stone, of wood and cloth; trophies and triumphs of the beautiful and the useful, the cunning brain and the nimble fingers; and poor St. Giles stands petrified in the midst of elaborated chaos. Then, possibly, he bethinks himself of his own trade, and begins to wonder how it is represented. Gradually the smock-frocks draw off, and flit, like dingy ghosts, among pulverisers and clod-crushers. The mechanic, in a white, tight-sitting jacket, flies to the machinery in motion, like a needle to a loadstone. Weavers, silk and cloth, find out instinctively the regions fitted up by Lyons and Spitalfields, by Yorkshire, the West of England, and the Zollverein. Workers in wood, and in iron, and in stone, find the most congenial subjects for criticism in their own crafts; and accordingly, so long as every man confines himself to the examination of the branch of industry he understands, there is far more sound criticism flung about by the shillingers than the five-shillingers—far more real appreciation, and far more knowing remark. But Mrs. St. Giles has no notion of muddling away her hours on pulverisers or steam-engines, on broad-cloths or figured silks, or the home-familiar handicraft of stone, or wood and iron. As she rightly remarks, there is much to be seen and not much time to see it in. Then it is begins the real tug of war—then comes the grand battle between the hours and sight-seers. Backwards and forwards, from compartment to compartment, and aisle to aisle; up this gallery, down that; leaving a miraculous vision of dainty crystal for an extraordinary spectacle of gleaming pottery; hanging, oh, how charmed and delighted, for many a rapt half-hour, over the pianofortes, and listening to those surprising musicians playing polkas and schottisches; breaking out into perfect fits of exultation at the gleam of the jewellery and the craft of the silversmith; rushing, as a sudden thought strikes them, convulsively to the Koh-i-noor; staring their very eyes out in the Indian tent; hardly able to speak before the oriental grandeurs of howdahs and palanquins, and jewelled fans made of birds of paradise tails, in a flutter of delighted admiration all through France; getting the pungent snuff down their throats in Portugal; staring wondrously, their dormant sense of the beautiful half evoked by the tapestries and the vases, in the Sèvres and Gobelins room; regarding with puzzled bewilderment the Bacchante and the Greek slave: indeed,



Engraved by C. [illegible] from a Drawing by H Mason

[illegible] RIC[illegible] WROUG[illegible]

[illegible] PUBLISHED BY [illegible]

MODEL OF THE GOLDEN TEMPLE OF C[illegible]

Mrs. St. Giles has her doubts on these subjects, and properly and staunchly insists upon the laces, and the silks, and the ribbons instead. Upon which, soon after they have rushed faintly up-stairs—for Mr. St. Giles has already remarked, if he comes from the agricultural districts that it is 'main hard work, sure-ly,' or, if from the metropolitan, 'as how it's jolly hard work, and no mistake'—some one drops a sly hint about the dinner, which St. Giles knows is the only thing which will have the ghost of a chance of unrivetting Mrs. St. Giles from the Valenciennes, the Honiton, and the Mechlin.

"Dinner, then, in all manner of quiet holes, and nooks, and corners. A great untying of handkerchiefs and distribution of viands, and strange whiffs of rum and gin, borne upon wandering zephyrs. 'Your strawberry ices and wafers! Pooh, pooh,' says St. Giles contemptuously, giving another deadly bite to the Brobdignag sandwich. Amusing to watch the diners' genuine, unadulterated, thorough enjoyment. There, St. James, what would you give for an appetite like that? Nay, Lady Blanche, don't turn up that exquisitely-chiselled—that's the expression—nose, because that hearty, wholesome dame did smack her lips so vigorously after the stout out of the stone bottle; or because that thin little pinched woman, who looks as if she had had all her blood sucked out of her by leeches, modestly turning round to that tapestry or under the leg of the beauffet, applies an upturned phial to her mouth. Eat and drink, good folks all: refresh yourselves for the sight-seeing pillage. Plenty to gaze at yet before you—miles of galleries and avenues to walk through; and remember, there is young St. Giles—the dog is no light weight up and down those side-aisle stairs.

"After dinner, and the scene is busier still. Humble, earnest, curious people, are yet pouring in in continued streams from every turnstile. Groups of girls go giggling along together, and are only brought back to admiring gravity by the sight of fine clothes. Boys whistle to their comrades like so many Roderich Dhus; young gentlemen in the gallery 'hallo,' or, as they pronounce it, 'holler,' to young gentlemen in the nave; juvenile St. Giles', crying bitterly in consequence of having been lost, are taken to the station by benevolent policemen, who don't like being made dry nurses of, and would rather have a thief any day in the week; charity-schools walk in drab-coloured processions through the aisles; the organs are blocked up like whalers in the ice; and people who have bought catalogues, find them about as useful as a dolphin would a box of lucifer-matches. Then hurrying in hot haste from nation to nation, and department to department—perspiring and somewhat cross—go the good folks who have sworn, ay, and keep their oaths, to make the best use of their time. How they cram themselves with sights! how they are ready to burst with wonder! how their eyes are dazzling and their heads are aching, and how all night long the Crystal Palace will be swimming and whirling around them! Again, we have the groups collected around the crystal fountain; everybody waiting for somebody else—everybody looking for somebody else—separated families coming together—the occupants of excursion trains being mustered—greetings passing between townsmen or village men who have not met since morning—more whistling boys, more giggling girls, more lost children; and then, the hour of greatest crush and pressure being over, St. James upon his horse from Rotten-row, or in his cab from the neighbouring drive, sees St. Giles pour out by the thousand, and says to himself, 'What a monstrous lot of people! What a cram it must have been inside! and how pleased they look—quite cheerful! Well, so much the better. I remember I used to laugh at the notion of the Crystal Palace, and say it was a regular do. But I never was more out in my life; and I think it manly to confess it!'"*

* *Examiner.*

CHAPTER XI.

A GERMAN VISITOR TO THE EXHIBITION—TROUBLES BY SEA AND LAND—VARIOUS REMARKS ON COACHES AND OMNIBUSES—THE LONDON POLICE—ADVENTURE IN THE PARK—OPENING OF THE EXHIBITION—ENGLISH SCULPTURE CRITICISED—INDUSTRIAL ARTS, ETC., ETC.

We have already, on several former occasions, quoted the opinions of our Gallic neighbours on the Great Exhibition and its multitudinous contents. M.M. Le Moine, Blanqui, Brioz, and others, have ably gone through their task; and, bating a little excusable national vanity, have, upon the whole, been tolerably impartial. Of the German reports we have as yet said nothing; we shall, therefore, endeavour so far to supply the omission as to avail ourselves of the friendly assistance of an able writer in the valuable columns of the *Literary Gazette*, and present our readers with the following brief notice of a collection of letters on the subject, which originally appeared in the *Kölner Zeitung*, and have since been collected and published in this country by their author, the learned Dr. Scherer. "The author," says our reviewer, "is not a stranger to this country; for we learn from his book that he visited England nine years ago, and on that occasion he travelled in stage-coaches, and dined at the Reform Club. The object of his present journey was to inspect the Exhibition, and to write letters on the same. Dr. Scherer, then, is one of the numerous representatives of the German press, and his reports are very much like those which have for the last two months filled the columns of continental newspapers, with this difference only—that the correspondence has been discontinued, and that the learned doctor is the first to take the field with a book.

"With these views, Dr. Scherer journeyed to England, and his first letter is dated the 30th of April. He had scarcely reached Aix before the Great Exhibition came to meet him in the shape of gigantic placards, displaying a faithful representation of the Crystal Palace, and the offers of the numerous rival companies, each competing for the honour of conveying the greatest number of visitors to the World's Fair. The doctor despised their allurements, and, shaking off their agents who clung to him, offering board, lodging, and all the gaieties of London, at rather extortionate prices, he proceeded through Belgium to Calais, embarked in one of the wretched steamers which run between that place and Dover, suffered from the effects of sea-sickness in others, and from those of a whiskey-party in himself, and finally reached Dover. The inhabitants of that town, the doctor remembers, have, ever since Shakespere's time, been renowned for their extortions, and they have (we are further informed) of late years carried on an obstinate opposition against the construction of a light-house, from motives of self-interest, which Dr. Scherer does not hesitate to specify. His language on the subject of the Dover people is so explicit, that we must suspect his having been a great sufferer from that strongly-developed sense of acquisitiveness which forms so prominent a feature in the organization of the natives of seaports and watering-places. There are no data of the extent of their encroachments on his purse; but we learn that a party of German labourers who came over in the same vessel, and who were compelled to remain the night at Dover, had to pay three shillings per head for beds in a low public-house. There can be no doubt of the folly of such conduct on the part of the Dover touter and innkeeper, and we are convinced that Dr. Scherer's emphatic warning to all his countrymen to avoid Dover on their journey to London, promulgated as it was by the largest and most popular newspaper of Germany, has had its effect on the pockets at least of the culpable parties. As for Dr. Scherer, his acquaintance with the Dover hospitality

must have been of short duration; for we see him that very night in the two A.M. up express, sleeping in a *coupé*, and awakened and dreadfully frightened by the (to him) unusual amount of traffic on the South-eastern Railway. The Brighton train thundering above him, and the down-train to Dover rushing past him, confused his sense of sight as well as of hearing; so that, what with whiskey, extortion, night-air, and railway-traffic, the traveller reached the metropolis in that state of feverish agitation and hopeless confusion in which all foreigners enter upon the first day of their London life. What with the difficulty of obtaining his luggage, and the still greater difficulty of taking care of it when obtained, and the impossibility of finding one particular omnibus among the number that crowd the London-bridge station, he advises his German friends, for whose benefit he travels, to take a cab, to avoid German lodging-houses, and to settle in some respectable hotel.

"The traveller's account of the morals and manners of our cabmen is not complimentary to that very useful class of society; but he speaks with admiration of the omnibus-drivers, and gives a rather singular sketch of the extinct generation of stage-coachmen:—'Coaching,' says he, 'is a fashionable trade in England; and many a gentleman in difficulties curses the railroads for having beaten the stage-coaches out of the field. Even now I fancy I see the coachman of former days, with his white hat and great coat, shawled to the nose, *en toilette exquise*, guiding his horses with an aristocratic and high-bred air, dining with the passengers, and treating them as his equals. Such a coachman had a large income; for the passengers, most of them men of high rank, considered him as one who formerly belonged to their order, and feed him with the greatest liberality. Those times are past; and a ruined gentleman has now no other resource but the turf.'

"The 1st of May was a great day in the life of Dr. Scherer. It nearly killed him; for he had to stand the *Kölner Zeitung* in lieu of the large staff of reporters which the London papers employ on such occasions. In this arduous undertaking he was all but suffocated by the crowd; but he was protected by the police. 'The London police,' observes our worthy doctor, 'has in a great measure justified its reputation for firmness and good temper; 4,200 policemen were employed, with no other weapons but their staves and the palladium of the law. I have repeatedly seen such a staff opposed to the frantic rush of a mob, as well as to the powdered coachman of a peer, and, on every occasion, the warning was obeyed. The only case of resistance I remember was in Hyde-park, when a workman had got on a tree, from which lofty position he proposed to inspect the royal procession. A policeman told him to come down. 'So I will,' said the fellow, 'when all is over.' And on the policeman's threatening to fetch him down, he replied, 'Come if you can!' This dialogue attracted a crowd of people, who took the part of the man on the tree, especially as the policeman committed the folly of climbing up to arrest him. The natural consequence of this false move was, that he stuck fast in the lower branches, and that he called his comrades to help him. In a few minutes the tree was hung full of policemen. It was a comical sight. The upshot of the affair was, that the delinquent capitulated, and promised to surrender if permitted to march off with all honours. But after his descent the policemen proceeded to take him into custody; and this attempt of theirs was strenuously opposed by the indignant populace, who rescued the prisoner, and favoured his escape. Similar scenes may have been enacted in other parts of the park; but there was no trace of a systematic disturbance or hostile demonstration, such as the alarmists anticipated.'

"Of course not," exclaims our reviewer, "for we are a loyal people. 'To see the queen,' continues the sagacious doctor, 'is a religious duty to the well-bred Englishman; and I verily believe, that without the royal procession, the Exhibition would have lost

one-half of its attractions for the inhabitants of the provinces. The English are, however, so intensive in this adoration of majesty, that the queen cannot appear in public without the danger of being crushed (*erdrücks.*) Hence she has left Brighton, and limited her visits to Windsor.' Another feature of interest to the continental visitor was the absence of large masses of troops. 'The few troops I saw were a guard of honour rather than of safety: they were under the command of the police; nor were they by any means allowed to interfere.' The royal procession, the ceremony of opening the Crystal Palace, and the various events which occupied public attention during the first weeks in May, have been treated of by so many and so able pens, that we feel justified in dismissing Dr. Scherer's notes on these subjects, with the remark that they are meagre and confused. His observations on the gradations of the entrance-prices at the Exhibition are, however, worthy of note. He says that in England alone such a gradation could have been decreed without exciting the animosity of the lower classes; that political equality has its antithesis in social inequality; but that, in return, there is no rank so low that it cannot aspire to the highest:—'Real genius is sure to make its way in this country: of this, M. Paxton is an example. The institutions of England stand firm and unshaken; for they spring from the soil of the country. There is in them nothing that is foreign to the historical progress of the national character.' This is saying a great deal for a German; but, in return, Dr. Scherer runs amuck at our sculptures, and protests that none of our modellers can boast of an European reputation. He admits, however, that our industry has all but attained the perfection and beauty of high art:—'Though their furniture and carpets, their glass and china, their carriages and weapons, may, by their design and colour, offend the eye, they still possess a charm of practical usefulness, which makes them preferable to the corresponding productions of other nations. They are 'finished,' a word which scarcely ever applies to the industrial produce of Germany.'

"Here, in the midst of his wanderings, we leave Dr. Scherer, and we leave him gladly. Our space forbids us to follow him through his chapter on M. Soyer, the dinner at Richmond, and the Lord Rosse *conversaziones*. If we have devoted more space to this book than its contents warrant, it is because this volume is first in the field, and because we find an interest in the subject which we cannot find in its treatment by Dr. Scherer, who is too much accustomed to London to amuse by his mistakes, and too great a stranger to London life to instruct us by apt and enlightened criticism. We look for better German books on the Great Exhibition, and better books there ought to be. The German papers have indeed mentioned these letters as 'clever and spirited.' If so, their virtues are, like the Gascon's modesty, 'most carefully hidden.'"

Having taken leave—we confess somewhat unceremoniously—of our German friend, we shall devote the remainder of the present chapter to a few desultory remarks on a variety of matters which, from time to time, presented themselves to our observation. And first, with respect to the music in the Crystal Palace. If the sights of that marvellous place perplexed the gazer by their variety, its "concord of sweet sounds" offered equal difficulties to the listener by reason of its ambiguity. It was found singularly hard to give any account of the musical instruments there assembled: and the task of the jury to award the prizes in this department of art-manufactures was not to be envied. To illustrate in merely an obvious item or two.—There were five well-sized organs: that of Mr. Willis being on a first-class scale. Yet the most effective among them was neither the largest nor the most various instrument. We speak of M. Ducroquet's organ, that stood in the centre of the nave. It is difficult to decide what share position may have had in this matter: though it was not difficult to perceive that the organ of Messrs. Gray and Davison, in the transept gallery, behind the great elm-tree, spoke through an interposing medium com-

paratively fatal to the transmission of sound. But another distinction must be indicated. While in variety of stops and in softness and mellowness of tone, M. Ducroquet's organ was probably poorer than its English rivals—owing to its having been built for uses totally differing from those of English or German church organs—it had a power and a brilliancy decidedly surpassing those of its contemporaries. A great French organ is not an instrument for accompaniment so much as for parade. The former was confided to a choir organ, set up in the choir to accompany the chanters; while the great organ over the grand entrance was devoted to pouring out the loudest symphony or voluntary with which a procession can be accompanied. Hence the full organs of France are made to produce a *fortissimo*,—effective when they are new,—but which, when the instruments are either bad, or aged, or out of order, is apt to become fearfully strident and harsh. In pianofortes, difficulties of other kinds arose; as was seen in the *Times*, where a rather animated correspondence betwixt the houses of M. Erard and the Messrs. Broadwood was published touching the priority of certain inventions. As regards result, it would be difficult to surpass the evenness, force, sweetness, and brilliancy of tone of MM. Erard's newest instruments. The amount of decorative design lavished on the outside of the pianofortes exhibited—whether in *marquetrie*, *buhl*, wood-carving, *papier maché*, in new dresses of tortoiseshell and pearl given to the key-boards, or in new forms to the pedal—was large enough to claim an article to itself. Somehow the prejudice remains, that over-elaboration of the case of the pianoforte is apt to detract from its beauty of tone. Yet, what is the most gorgeous fancy of a Crace, or a Pugin, or a Gruner, compared, in preciousness with the old humour of harpsichord ornament when a Salvator Rosa, a Boucher, or a Lancret painted the cases? Something like a return to this luxurious union of the two arts it might have been fair to have expected here. yet we had no example of the kind. M. Sax exhibited a case full of new *Sax*-ifications;—or, to speak less fantastically, perfected brass wind-instruments. Rumour promised us the coming of a French military band—practised on the horns, cornets, bugles, and trumpets of this ingenious inventor—which would have made them discourse suitably. The case is one in which the players must be practised before the value of the novelty can be fairly tested. In brass instruments, it should be remembered, fashion seems liable to many changes. The trumpet parts in the scores of Sebastian Bach puzzle the Distins and the Harpers of our own times. The model of the modern trombone was dug up from under the lava-covering of Herculaneum. Some of the instruments, again, the occupation of which is as limited as their use is peculiar—such as the *basso clarone*, so happily employed by M. Meyerbeer—are at present only partially adopted;—this fact contributing to make the task of comparison and specification almost conjectural.

There has been no recent novelty in plan or in pattern of the violin which it would be fair to have expected in the Crystal Palace. The few attempts made, during late years, to perfect the *viola*, have resulted in varieties so delicate as hardly to be appreciable by the general connoisseur; while the fact of time doing that for the violin which it does for no other instrument—namely, ripening and enriching its sound—gives to this department of the manufacture of musical instruments a colour of antiquarianism (so to say), which possibly removed it beyond the world of contemporary enterprise represented in Hyde-park. At all events, we had nothing, whether of Cremonese, German, or French origin, that could give trouble to, or occupy much time among, our Blagroves, Hills, and Piattis.

More strangeness and variety were to be expected in the family of instruments played on—or, to translate the French verb, *pinched*—by the hand, including the harp, guitar, lute *teorbo*, &c.; especially by those who recollect that quaint orchestral exhibition, some years ago, made at one of the *ancient concerts*, when a *villanella* or madrigal was per-

formed on such picturesque-looking instruments as figure at the suppers in Bonifazio's pictures, or in the banquet-music of a Veronese. There were odd wood-encumbered machines from the East, the very sight of which would be a warrant for their deficiency of resonance; to judge of the scale or the executive practicabilities or the special effect of which we should apply to no Huerta or Regondi, but to the *Hafiz* or *Leila* of their original birth-place. A complicated guitar-lute from Spain (we are not sure of its right name) had a more conversable and Christian look than belongs to the gongs and guzlas of the East. In the meantime, we are disposed to imagine, that the century of musical inventions, though partially and meagrely represented, might by the very blanks and debatable lands indicated in the above sketch, suggest much matter for thought, comparison, and experiment to the *dilettante* who would search for traces of his own elect art in his recollections of the naves, and aisles, and bazaars of *The World's Fair*.

CHEAPNESS OF THE GREAT GLASS-HOUSE.

If for nothing else, this tremendous pile of transparency was astounding for its cheapness: it was actually less costly than an agricultural barn, or an Irish cabin. A division of its superfices, in cubic feet, by the sums to be paid for it, brings out the astounding quotient of little more than one halfpenny (9-16ths of a penny) per cubic foot—supposing it to be taken down and returned to the contractors when the Exhibition was over; or, remaining as a fixture, the rate of cost would be rather less than a penny and 1-12th of a penny per cubic foot. The ordinary expense of a barn is more than twice as much, or twopence-halfpenny per foot. Here are the figures:—The entire edifice contained thirty-three millions of cubic feet. If borrowed, and taken down, the sum to be paid is £70,800; if bought, to become a winter garden, £150,000.

EXHIBITION EXPENSES INCURRED BY ITS VISITORS.

Five hundred thousand pounds were received at the doors of the Exhibition; £657,000 by the metropolitan railways: say a fourth of that, or £140,000 by the other railways. A sum fully equal to the receipts of the Exhibition, it is supposed, was spent within it in refreshments. It is estimated that there are some 5,000 omnibuses in and about the metropolis, most of which, we are assured, received from £10 to £15 a-week over their usual earnings. Say they earned £10, one with the other, for twenty weeks, or 4,000 of them, and it would be £800,000. Then there are between 1,000 and 2,000 cabs, all of which did very well. If they earned £1 a-day each, it would be £120 each for the twenty weeks, or £120,000 for only 1,000 of them. There must also have been cab and omnibus hire in the provinces, to and from the stations; making altogether nearly or quite a million in petty transport. Besides, there are other personal expenses, amounting to at least as much as the cab and omnibus hire: that is one million more. Putting these sums together, we have—

Received at doors of Exhibition	£500,000
Spent within the Exhibition . .	503,000
Ditto on railways	690,000
Ditto cabs and omnibuses . .	1,000,000
Ditto personal expenses . . .	1,000,000
Total	£3,693,000

That is nearly three and three-quarter millions of money, or say four millions. Large as this sum is, it is not much above seven per cent. on the amount spent per annum, within these realms, in wine and spirituous liquors.

Engraved by L. Pollet, from a Daguerreotype by Mayall

GROUP FROM THE FRENCH DEPARTMENT

CHAPTER XII.

ARTISTIC TASTE.

IMITATION TO BE AVOIDED—FALSE TASTE IN POTTERY, CARPETS, ETC.—INCONSISTENCIES IN ORNAMENTATION—EXEMPLIFIED IN GRATES, LAMPS, CANDELABRAS, ETC.—EXTRAORDINARY BRACKET DESCRIBED—ARTISTIC EXCELLENCE IN ENGLISH MACHINERY—SCHOOLS OF DESIGN FOR MANUFACTURES DESIRABLE—ENGLISH AND FRENCH TASTE—SUPERIORITY OF INDIAN TASTE.

Not to dwell too long on minuter details, now that we are approaching the *finale* of our labours, we will indulge awhile in a more discursive flight, and present our readers with a few observations on artistic taste, as exhibited in the Crystal Palace, by a talented critic, whose able and scientific remarks enlighten the columns of one of our popular journals. "Reverting to the lessons in artistic taste which the Exhibition teaches, we are anxious to guard ourselves against those deductions which the jealousies of national prejudice are so apt to draw, and to remind the reader that if we point out to particular branches of our native industry specimens of excellence in foreign production, it is not for the purpose of recommending imitation. There has been enough of that hitherto, and little good it has done us. Let us quote some of the instances by way of warning. Our potters sent contributions to the Exhibition which illustrated every known style of the manufacture. Some delighted in Etruscan shapes and colours; others took the bronzes of Pompeii for their model. The influence of China was of course prominently seen; and mediæval art also showered down its suggestions. Then we had bad imitations of Sévres, and worse of Dresden. Every day we are adding to the number of our reproductions; and no sooner is Parian introduced for modelling statuettes, than Cupids and other juvenile indelicacies are perpetually smiling at us under glass shades, or sitting in very uncomfortable attitudes upon projections of dishes, or balancing themselves miraculously upon the summits of lids. But pottery is by no means the only, or the most flagrant case of this imitative rage, which was so strongly marked at the Exhibition. Take the section of carpets, and you will find it was almost, if not quite as strong. Here partly, probably, in obedience to the dictates of the Berlin-wool workers, and partly in deference to the tastes of the Brussels and French makers, we have got into a habit of covering the floor we tread upon with a luxuriance of vegetation and a lavish expenditure of colours which it is quite wonderful quietly to contemplate. Let any one recall to mind the girders of the western nave, from the sides of which our carpets were suspended, and we are mistaken if even the Chiswick shows will have any longer the slightest charm for him. He might there have seen flowers and leaves, and fruits of a size such as was never seen in this world before, and we conscientiously hope may never be seen in this world again. The eye was dazzled and perplexed by moss-roses that induced headache with their brightness, and the beholder might have wondered how he could ever make up his mind to walk over a material so decorated. The uses of a carpet are no mystery; and any sensible person who examines the subject, will have no great difficulty in deciding what style of ornament is unsuitable for such an article. In the first place, he will say, make your carpet the back-ground for setting off your furniture appropriately and well. Now, is that to be done by broad and startling contrasts of colour, which are constantly drawing the eyesight painfully downwards, instead of allowing it to rest agreeably upon other objects? Again, no one will contend that flowers represented as real, and fruit rounded off so that you are tempted to stoop down

and gather it, and vegetation that threatens the foot with hopeless entanglement, are proper designs to tread upon. Yet, that is what not only England, but all Europe (judging by the Exhibition) does in this matter—and why? Because, when tapestry became no longer useful, the love of large patterns and real effects which it suggested were imported into carpet-making, while the monstrosities of Berlin-wool work came in aid of the mania. The English section of carpets had imitations of Indian, of Brussels, of French, of *parqueterie* and tesselated pavements, and of the mediæval style of manufactures. In one article, there was a pretty long list of reproductions, which reminded us that in industry, as in the drama, we are rather addicted to borrowing other people's ideas, and not very choice in the selection of them. Let us take another branch of production, where it seems less likely that we should err. It is that of grates, lamps, candelabra, chandeliers, candlesticks, and such like objects, for the heating and illuminating our dwellings. In these, undoubtedly, there are a few very fine productions; and with respect to some of them, our pre-eminence is undoubted: but let any person of ordinary taste examine the whole collection carefully, and he will retire from the survey with a painful impression of the ignorance displayed in the use of really beautiful materials. He will find grates, exquisite in the quality of their workmanship, but totally unsuited for the uses they are intended to serve, which must necessarily break the hearts of servants in the effort to keep them clean, with Greek, Gothic, Moorish, and Elizabethan architectural arrangements introduced which are totally unnecessary, and figures of human beings in unhappy proximity to an element which must inevitably destroy them. The English manufacturer never abandons the idea of vegetation; and wreaths of fruits and flowers that would puzzle the horticultural acumen of Mr. Paxton himself, are fearlessly suspended over the receptacle of the glowing embers, or disposed upon the fender as if it was meant that they should be toasted. Again, in lamps, candelabra, chandeliers, and the like, the greatest atrocities in taste are committed; all reliance upon the materials employed, and the purposes they are intended to serve, seems to be thrown overboard, and the study of the makers has evidently been to render their products as little as possible like what they were intended for. Some seize upon the idea of trees with curiously entangled branches, and which have neither art nor nature to recommend them; others get a human figure patiently to support upon its head a weight of metal which would sink the stalwart frame of an Atlas; then animals and birds of all kinds are represented doing physical impossibilities in the cause of light; and, to crown the absurdities perpetrated, Cupids and the other adjuncts of heathen mythology are lavishly interspersed among chandeliers and brackets with a disregard of simplicity and elegance in design which is truly surprising. We give, as an illustration, the description of a bracket which was among the best of the kind in the British part of the Exhibition. A complicated Greek scroll sprung from a large basket, which was supported by two grim Caryatides, and the summit was occupied by a female figure, executed in Parian, in an attitude of expectancy, as if she had an appointment there with her lover. On the projecting part of the scroll, and at its extremity, rode a Cupid, also in Parian, who, of course, was shooting one of his arrows at the young lady above him. After various obstructions, the cord descended to the chandelier itself. Three other trembling Cupids were looking on with fear at the archery scene, and under these was a confused mass of goats'-heads, masks, and owls, which seemed to have no connexion with the rest of the subject or with each other. Let it not be supposed that we think the French or any other country exempt from the same criticism as our own manufacturers. The sins committed against good taste are confined to no single people; but as we sent to the Crystal Palace the largest number of contributors in each section, our faults and shortcomings were unavoidably the most glaring. There is another view of the subject, too,

which should not be lost sight of, and which, probably, in a great measure, explains the vulgarities of our manufacturers. Like a schoolboy's first effort at composition, which naturally runs into ambitious rhodomontade, our industrial classes, called from their usual unpretending and useful labours to compete with the whole world, indulged largely in the hyperbole of production. It was so in most of the classes, but especially in those where foreign rivalry threatened to be the most formidable. Some sections, and especially that of machinery, feeling their pre-eminence to be secure and undoubted, were content to be plain and unpretending, in consequence of which they developed a high degree of artistic excellence. The most refined taste might have gathered pleasure and satisfaction from a survey of our machinery department; for there, in the forms and the arrangements, strict attention to the proprieties and requirements of each machine might be regularly traced. The only beauty attempted was that which the stringent application of mechanical science to the material world could supply; and in the truthfulness, perseverance, and severity with which that idea was carried out, there was developed a style of art at once national and grand. We may quote, as remarkable illustrations of this, Whitworth's tools, and the cotton machinery of Hibbert and Platt. So, again, in the building which enshrined that vast collection of human industry—there were no pillars that could have been dispensed with, no architectural mannerisms, no effort at effect unsubordinated to the general design. All was plain, simple, and mathematically severe; yet who could enter that vast interior and not feel his heart swell within him at the solemn and majestic impression which it created? We do not for a moment contend that the unbending precision which produced such great results in the cases quoted, would be equally applicable to the manufactured products made available for our every-day and domestic wants and comforts; but, unquestionably, it showed that there are limits to the decorative art prescribed by the uses and the material of the objects on which it is exercised, and that we cannot, with impunity, attempt to recall defunct or foreign styles of ornament. Whether we shall ever have a school of design,—original, characteristic, and meritorious,—incorporated with our manufactures, it is impossible at present to foretel: for the Exhibition threw no very hopeful or decided light upon that subject. New tastes are not formed, and old habits of subserviency are not dismissed in a day. The power of cheap production, and the advantages of excellent material turning the scale of the market, blind our eyes to defects which would not escape notice if competition pursued us more closely. Then it must be remembered, that the sins of which we complain are shared with England in pretty equal proportions by every other European country. In some branches we are in advance; in others, we are behindhand; and the French undoubtedly twist about the ideas which they gather from the past with a freedom and playfulness which we, with our literal faithfulness of rendering, cannot always equal. But, on the whole, the vein of art in connexion with manufactures, seems well nigh exhausted all over Europe. What, then, is to be done: and where shall our industrial classes look for inspiration to guide them? Undoubtedly they will learn most from a careful study of the Indian collection. There they will find developed, in its greatest known excellence, the harmonious combination of colours in textile fabrics. Such a thing as vulgarity in design seems unknown in our Eastern dominions, except when clearly imported by ourselves. They appear to have the secret of being minute in their patterns without any confusion or indistinctness; and, however great the elaboration of ornament in which they indulge, the uses and materials of the articles which they decorate are considered paramount. We do not, in pointing out these things, by any means recommend that our manufacturers should cultivate long beards, rush into the productions of Cashmere shawls and Masulipatam carpets, go about in palanquins, and, forswearing Christianity, become Mohammedans or Brahmins; but they may supply

defects and correct faults in the decorative art, as practised among them, from a careful elucidation of those rules upon which the instinctive genius of Eastern nations in such matters depends. They may at length penetrate the secret of that happy ease and grace of style which makes Indian productions magnificent, without being in the least staring or pretentious."

We subjoin a few extracts relative to Indian taste, from an able lecture on the arts and manufactures of India, by Professor Royle. Speaking of the various branches of the fine arts in which the Indians are practised, he bestows considerable praise on the small pictures on ivory painted at Delhi, which were in the Great Exhibition, and makes mention of some of a large size and great antiquity, in the different rock-hewn temples of Western India. "In sculpture," observes the learned professor, "the Indians have not attained any excellence; though the opportunities are great of seeing the human figure, as well at the ordinary occupations of life as in their gymnastic schools, and they have had considerable employment in sculpturing the figures, though grotesque, of their gods and goddesses. Yet that they are capable of excelling in this, as in many other arts, is evident from the admirable representations of the different castes and trades in the clay figures from Kishengurh in Bengal, as from Gokak, near Belgaum; so also in the ivory carvings of the elephant, camel, &c., from Berhampore, and in the stone sculptures of the rhinoceros, sacred bull, &c., from Gyah. That in former times they attempted greater things, and with considerable success in ancient times, may be seen in the ruins of the city of Mahamalaipoor, to the south of Madras. Bishop Heber describes the rocks as carved out into porticoes, temples, bas-reliefs, &c., on a much smaller scale indeed than Elephanta or Kennary, but some of them very beautifully executed; and the bas-reliefs of a pagoda at Perwuttum are considered as some of the most extraordinary specimens of art in all India. So in the cave-temples of Elephanta, the central image is described as composed of three colossal heads, about fifteen feet in height: the central has an expression of undisturbed composure; the one on the left, of benevolence; while the third is calculated to strike terror into the beholder. But these temples, as well as those in Central and North-western India, contain numerous instances of sculpture on a gigantic scale, which we have not time, at present, even to allude to.

"Engraving, though defined to be the art of representing objects by cutting wood, stone, and gems, or metal, is often applied only to such works as are intended afterwards to be communicated to paper; but the term also denotes some ancient branches of the art, as gem, seal, and die engraving, of which we have some reliques of antiquity, which excel in their exquisite polish. Engraving inscriptions on stone is one of the most durable modes of preserving records, and has been practised in the East from the earliest times of which we have any notice. In India the long inscriptions of Kapurdegiri, Dhauli, and Girnar, show that the art must have been practised in great perfection at periods at least as ancient as the expedition of Alexander. The *lath* or pillars at Delhi and Allahabad are inscribed with similar inscriptions; and the numerous plates of copper which have been found in all parts of India engraved with grants, or agreements for leases of land, and which have proved the most authentic, and in many instances the only records of lines of sovereigns, prove how general has been the prevalence of the art of engraving in all parts of India. The engraved seals from Delhi, which were in the Exhibition, were excellent specimens of the art of gem-engraving; and many of the precious stones have been inscribed with verses from the Koran, which enhances their value in the eyes of their Mohammedan wearers.

"As a gold and silver, as well as copper coinage, has long existed throughout the country, it might be supposed that this also was an art which had originated in India; but I believe that the careful investigations of the most competent observers have not

traced any vestiges of the art beyond the age of the Selucidæ, whose purely Greek coins are succeeded by some having a Greek inscription on one side, and an Indian on the other, and these by coins having a native inscription on both sides; and this through a long series of princes. Raising figures on metal, on vessels, or on precious stones, is likewise an original Oriental art; but as the Persian worshippers of fire, as well as the Mohammedans, objected to images, we have often, therefore, only inscriptions where we might have had raised figures. But a few of the Hindoo vessels were ornamented with probably sacred figures, or of the signs of the zodiac, or with Hindoo mythology, as was even a sword-blade from Lahore. In enamelling, I need not do more here than refer to the beauty of the flowers, birds, &c., which were delineated, and with the pleasing harmony of the colours which they employed. The specimens of enamelled arms and jewellery from Cutch, Scinde, Kotah, Dholepore, Lahore, and Kangra, showed that the art is practised with the greatest skill along the north-west frontier of India. It is probable that if the form of the articles were adapted for European use or ornament, a considerable sale might take place here of the best enamels from India. A good account of the mode of enamelling in the East would be very interesting, and might afford valuable hints.

"The beauty and variety of patterns in the various articles which we have referred to, as well in the carved or engraved, as in the painted, printed, woven, or embroidered works, combined, as they so frequently are, with harmony of colouring, require notice in this section of our arrangement; and, as I have elsewhere said, this we see, whether we examine a production of Dacca, or one from Delhi, Benares, or Ahmedabad, Rajpootana, or Hyderabad, from Madras or from Mooltan, Cashmere or Khyrpoor, and whether in a common chintz or in a fabric of silk, or one enriched with silver or gold, or with imitations of gems. In all we see the utmost variety kept in bounds by the nicest taste; for even the most flowery and gorgeous appear never to exceed what is suitable to the material and the purpose to which it is to be applied. Mr. Digby Wyatt supposes the happy effects of Indian designers to be due to the refinement of taste engendered by their traditional education, and that this precludes their toleration of any departure from those harmonious proportions which the practice of ages has sanctioned as most pleasing and agreeable. Mr. Owen Jones states, that 'one guiding principle of the ornamentation of the Orientals, appears to have been that their decoration was always what may be called surface decoration. The patterns of their shawls and carpets are harmonious and effective, from the proper distribution of forms and colours, and do not require to be heightened in effect by strong and positive oppositions. In their scroll-work, the ornament and the ground occupy equal areas. To obtain this effect requires no ordinary skill, and it can only be arrived at by highly-trained hands and minds.'

"Architecture is one of the fine arts which, from the usual permanence of its materials, ought to enable us to judge of the antiquity of the arts in India, and of the different degrees of merit of the several races who have inhabited that country. But the destructive effects of the climate, deluged at one time with incessant rain, and parched up by a furnace-like heat at another, is very unfavourable to the permanence of buildings, especially as the soil is in many parts impregnated with various salts, which corrode the walls at the surface of the ground, at the same time that the seeds of the sacred fig-tree, or *peepul* (*Ficus religiosa*), will vegetate on the top of a wall, the ledge of a pyramid, or the smallest crack in a dome, and sending its roots downwards, even between the driest stones and mortar, will, in course of time, destroy some of the most substantial buildings. Among the models sent to the Exhibition, we had specimens of some of the styles of architecture which prevail in India: for instance, the carved wooden models of the musjids or mosques from Ahmedabad, gave us specimens of the

Saracenic style which was introduced by the Mohammedans, and of which so many splendid remains are to be seen in the tombs round Agra and Delhi. Of the Buddhistic architecture, which is conspicuously displayed in the rock-cut temples of Elephanta, Ellora, &c., and which has been so amply illustrated by Mr. James Fergusson, we had no specimens; nor of the Jain temples of Rajpootana, which have been described by Colonel Tod as monuments of simple grandeur or of elaborate elegance. But the stone models of the Hindoo temples sent from Benares and Mirzapore gave a very correct idea of the general pyramidal appearance of such temples in the Gangetic valley. The various varieties in Hindoo sacred architecture are, according to Colonel Tod, distinguished by the forms of the pinnacles, which spring from, and surmount the perpendicular walls of the body of the temple. The ivory-like, yet pith models of the Nagossorun pagoda at Conbaconcan, and of the unfinished entrance of the pagoda at Strearangum, give a good idea of the pyramidal, yet truncated and elaborately sculptured temples of the south of India.

"Before concluding, I trust I may be allowed to make a few observations on what may appear to many the too favourable view which I have taken of the state of the arts in India. In the first place, it should be remembered that the several specimens have generally been sent from the places where the respective mechanics and artists have attained the greatest skill; and secondly, that in most instances the articles have been selected by committees of European gentlemen. This would, however, have been of little avail, if the natives who produced the articles did not themselves possess both skill and taste; but the process may have excluded some things which did not come under this category. Europeans in India are, in general, little given to over-estimate Indian productions, and their true value has only been determined by the observations of many of the best qualified judges at the recent Great Exhibition. Though many of the officers of the various Indian committees have stated that much more highly finished articles might have been sent if more time had been allowed for their preparation, yet Europeans, in general, speak and write disparagingly of the different manufacturing processes adopted by the natives in India. Thus, without making sufficient allowance for the simplicity of the means by which they attain important ends, and for which others require a complicated apparatus, we have observations on the rudeness of the processes, and this without adverting to the curious fact of uneducated natives being found in almost every bazaar, who can make alloys, colour glass, and work enamels by methods which are unknown in Europe. Another great anomaly, often animadverted upon, is the apparently unfinished state of some productions, and how ill-assorted are the different parts of other made-up articles,—as, for instance, where we see a coarse iron ring in the midst of elaborately-worked gold and silver trappings. But we may see the same anomaly in a highly-finished French clock, with a key which in England would be thought unfit for a common cupboard. But this is a point connected with a more general subject,—that is, the causes which influence the greater or less development of the several arts and manufactures in different countries. I refrain from pursuing it, but refer to another subject,—that is, the immobility, as it has been called, of the natives of India, and of their remaining stationary at points which they seem to have reached many ages ago. But this is far better than the retrograde progress of other nations, which were civilised at as early periods. Though we are without the means of accurate comparison with the state of the arts in India at earlier periods, yet, in some of them we have seen, that, if stationary, they are so only at points which others have hardly yet reached. That the natives are capable of attaining almost any degree of excellence in the various arts, we have the most convincing proofs in the specimens exhibited in the Indian collection.

"But even without any mechanical improvements, which may assist in cheapening some

Engraved by G. Greatbach from a Drawing by H. Mason.

INDIAN PROCESSION – IVORY CARVING

FROM THE EAST INDIAN DEPARTMENT

...ach from a Drawi...

INDIAN FIGURES

FROM THE EAST INDIAN DEPARTMENT

...awing by H. Mason

...BROOCH

...IBLES, WITH LEAVES OF ENAMEL, IN A VASE OF GOLD, SILVER AND ENAMEL.

...AS A BROOCH OR HAIR PIN AND FIXED ON A SPIRAL STEM

FROM HONAU GERMANY

Engraved by C. Greatbach from a Drawing by H. M...

INDIAN VASE, WITH FILAGREE SILVER FLOWERS

of their products, there are enough, which are the produce of their patient habits and wonderful delicacy of hand, and are also examples of purity of taste, which may command a sale in European markets. Though the muslins, both plain and flowered, are greatly admired, yet, as being the produce of many months of hand labour, they are unable to compete in price with those which are the produce of European machinery; but as they are still preferred in India, a few may continue to be bought in Europe. Their calico prints, flowered silks, and rich kimkhobs, being much admired for their patterns, may be applied to a variety of ornamental purposes, if not of dress, still of decorative furniture. The shawls of Cashmere still continue unrivalled and command the highest prices. The embroidery being equal to anything produced elsewhere, only requires that the things embroidered be fitted for European use, since the cheapness of all hand-work in India will insure the prices being reasonable. The manufacture of lace at Nagercoil may be safely undertaken; and the carpets, rugs, and carved furniture, would command a ready sale if offered at rates moderate in proportion to the cost in India. The Wootz steel might be largely consumed, and the highly-wrought arms would be bought as curiosities, as well for the artistic skill displayed in the cutlery as in the inlaying. Well-shaped pottery and the highly-finished Bidery ware, as well as the lacquered boxes of Cashmere, would all be bought, as also the various works of Bombay-inlaying, of ivory, horn, ebony, and sandal-wood; likewise mats, baskets of khuskhus, and of other materials, and japanned boxes. To these we may add the polished agate-ware of Cambay, the inlaid marbles of Agra, and the enamels of Cutch, Scinde, and of the north-west of India; also the filigree-work of Cuttak, Dacca, and Delhi, as well as of other places; likewise some native jewellery, if made in the forms fitted for European use. Even the toys would command a sale; and the models of fruits, as well as the figures of natives of different castes and trades, would find purchasers if they could be easily procured.

"That I may not appear singular, especially to people in India, in my estimation of the value of these Indian products, I would beg, before concluding, to adduce some unconnected and independent testimonies. For this I may first refer to the articles in the *Times*, which were distinguished as much by their talent as by their discriminative criticism. 'Turning to the class of manufactured articles, we find the long-established industries of the Indian Peninsula asserting their excellence in a manner at once characteristic and extraordinary. The same skill in goldsmiths' work, in metals, in ivory carving, in pottery, in mosaics, in shawls, in muslins, and carpets, was attained by those ingenious communities which now practise them, ages and ages ago. Yet, in these things, which the natives of India have done well from time immemorial, they still remain unsurpassed.'—April 25. And again, 'Yet, in another point of view, these remarkable and characteristic collections have a value that can hardly be overrated. By their suggestiveness the vulgarities in art-manufactures, not only of England, but of Christendom, may be corrected; and from the carpets, the shawls, the muslins, and the brocades of Asia, and from much of its metallic and earthenware products, can be clearly traced those invaluable rules of art, a proper definition and recognition of which form the great desiderata of our more civilised industrial systems.'—July 4.

"So, M. Blanqui, in his *Rapport* to the *Académie des Sciences Morales et Politiques de l'Institut*, observes, 'Les produits de l'Inde Britannique méritent l'attention du technologue autant que celle du philosophe et de l'économiste. Il y a vraiment un art Indien qui a un cachet de distinction comme l'art Français, et de plus une originalité souvent élégante et de bon goût. Cette brillante partie de l'Exposition a produit l'effet d'une révélation. Elle a été si complète, si riche, si bien agencée, qu'elle représentait l'Orient tout entier depuis les temps les plus reculés jusqu'à nos jours.—Les Indiens sont les Français de l'Orient pour le génie industriel: il ne leur manque que nos con-

naissances positives; mais ils sont aussi artistes dans leur genre que nos plus habiles dessinateurs de Paris, de Lyon et de Mulhouse,' &c.—p. 238.

"Again, in his letters, M. Blanqui says—'C'est tout un monde industriel nouveau pour nous, par son antiquité même, qui remonte aux temps héroïques, et par son caractère d'originalité à nul autre semblable. Depuis le commencement de l'Exposition, nous voyons tous les jours apparaître des produits nouveaux, plus admirables les uns que les autres, et qui attirent au plus haut degré l'attention des visiteurs. L'art Indien mérite, en effet, cette préférence: il ne ressemble à aucun autre. Il n'a point la bizarrerie du goût Chinois, ni la regularité Grecque et Romaine, ni la vulgarité moderne: c'est un art à part, conséquent avec lui-même, plus sobre qu'on ne pense jusque dans ses écarts, et qui semble n'avoir jamais varié ni emprunté quelque chose à autrui. Dans la céramique, il est plein de grace et de simplicité,' &c.—p. 79. 'Evidemment, l'art de tisser les étoffes est arrivé, dans ce pays, à un état fort advancé. Sans parler des châles de Cachemire, qui sont devenus les types du genre, tout ce que la Compagnie des Indes a exposé semble une collection de chefs-d'œuvre. Moussellines brodées d'or, fichus diaprés de milles couleurs, écharpes éclatantes du goût le plus exquis, tapis de table émaillés de fleurs, tissus de toute espèce *niellés* de vert émeraude, selles, manteaux, étoffes pour tentures, mouchoirs d'odalisques à petits carreaux d'un rouge tendre, quadrilles d'argent, toutes les nuances que la nature a prodiguée aux ailes des papillons se retrouvent dans cette collection Indienne, qu'une Compagnie aussi puissante que celle des Indes pouvait seule réunir par ses ordres souverains. L'Orient tout entier est accouru à sa voix.'

"I may fitly conclude these quotations with an extract from a letter of the government committee for the selection of articles for the use of the schools of design, addressed to J. C. Melvill, Esq., secretary to the honourable East India Company:—'We have to request that you will acquaint the Court of Directors, that having duly examined the collection exhibited by the court, we have found it to contain, beyond any other department of the Exhibition, objects of the highest instructional value to students in design, and that we have selected the accompanying list of articles from their collection, which we express a hope may be secured for the benefit of the schools.' The committee selected about two hundred and fifty; as some belonged to private individuals, they were able to purchase nearly two hundred articles out of the Indian collection for the use and improvement of the schools of design in this country. After these favourable testimonies, I regret that I am unable to conclude this subject with a notice of the several medals which have been awarded to the native manufacturers of the various textile fabrics, from muslins to carpets, or to the producers of the several other works in which manual dexterity was combined with taste; for, with the exception of the mosaics from Agra, and the sandal-wood carving from the Malabar coast, the rest must be enumerated among the omissions with which the international juries have been charged. That the articles exhibited were not without sufficient merit is evident from the testimonies which I have quoted, as well as from the universal admiration which they excited. A French gentleman to whom I mentioned the fact, while he was enthusiastically admiring the various works, pithily observed, '*Tant pis pour les jureurs*' But though it would have been graceful for the judges of the West to have sent some tokens of their approval to the absent and anxious manufacturers of the East, these may yet enjoy the proud consolation of thinking, that a committee of the British government, composed of some of the best judges, found the Indian collection to contain, beyond any other department of the Exhibition, objects of the highest instructional value to students, and supported their opinion by extensive purchases; while a representative of France has pronounced them to be 'the Frenchmen of the East for industrial talent.'"

CHAPTER XIII.

OPINIONS OF THE PRESS.

THE GREAT EXHIBITION AND ITS RESULTS—GREAT FEATURE OF THE PEACE CONGRESS OF 1851—SUCCESS OF THE EXHIBITION—VARIOUS OPINIONS—AGRICULTURISTS—MEN OF BUSINESS—ENTHUSIASTS—ANTICIPATIONS—SOCIAL ADVANTAGES, ETC.—MANAGEMENT OF THE GREAT EXHIBITION—EXERTIONS OF THE PRESS—THE FIRST OF MAY—EXCLUSION OF EXHIBITORS—CATALOGUE AND GUIDES—PRICES PROHIBITED—MONEY-GETTING—THE TONNERROPHONE—THE PRESS TO THE RESCUE, ETC., ETC.

As some mighty river, moving onwards in its majestic course through a wide and varied region, regardless of the petty obstacles which may beset its way, gathers renewed velocity and strength in its progress, till it finally arrives at the ocean of its rest, so through the minds of men the progress of the vast enterprise of a gathering of all nations to one universal mart of industry, acquired reality and power as it proceeded towards maturity; and, casting aside, "like dew-drops from the lion's mane," the petty opposition of inferior minds, travelled onwards towards the appointed goal of its brief but glorious existence. In the meanwhile, the press, like rumour with its hundred tongues, bore ample testimony to the complete success of the undertaking, and augured the most splendid results as to its future influence upon art and science throughout the world at large. We select from the innumerable evidences before us, the following passages from a popular journal, in illustration of our remarks. They appeared on the day of closing.

THE EXHIBITION AND ITS RESULTS.

"The Great Exhibition of the Industry of all Nations closes to-day. In the course of a few weeks, the most extensive assemblage of valuable products in all branches of manufacture ever brought together under one roof, will be scattered and dispersed, and the Great Industrial Congress of 1851 will be numbered with the memorable events of the past. But its influence will not cease here: it is but the first act of an important social movement, upon which the curtain is about to fall; and who shall say that what is to follow may not go far to realise the profound and philanthropic aspirations of the Prince Consort, the projector and ruling genius of the whole scheme, in the memorable words uttered by him at a banquet given by the lord mayor in 1849?"

As the words here alluded to have already been presented to our readers in the early part of our work, we shall not again offer them to their perusal, but merely state that they exhibited a correct view of the then existing state of knowledge among mankind, and a sagacious prognosis of its future increased development: in commenting upon which, our journalist expresses himself as follows:—"Looking back upon the experience of the two years since these views were propounded; looking back more particularly upon the six months which have elapsed since the Great Exhibition was completed and thrown open, we are inclined to think there is little, if any exaggeration in the hopeful picture of the world's future which is thus shadowed forth, as capable of accomplishment by the right direction of the natural gifts and means at the disposal of the great human family. If no more has been accomplished as yet, the very crowding in of goods from all quarters of the globe, and the thronging in of millions of spectators interested, more or less, in the production or uses of those commodities, afford a striking proof of the unanimity which prevails amongst men upon any comprehensive scheme of true usefulness, and their power to carry it into accomplishment. This great feature also distinguishes the Peace

Congress of 1851 from all known political congresses or movements of nations—that whereas, in the one case the gain of one is, under all circumstances, obtained by a concession or sacrifice of interests on the part of some other, and that generally the weaker one; in the other, gain is gain to all, the superiority of means or appliance evidenced by each competitor being at once available to the advantage of all the rest. The achievements of human intellect are common property, and only require to be known to be at once applied, in combination with others, to the attainment of still greater achievements.

"It cannot be doubted that the success of the Great Exhibition has far exceeded the most sanguine expectations of its projectors; and, but that it was a gathering together for good, they might almost, like another Frankenstein, have been terrified at the vast army of observation, of various races and habits, which they have been the means of concentrating around the wealthiest and least defended capital in the world. It is curious, indeed, to look back at a few of the past circumstances in this great drama, and to see how the anticipations of the directors of it have been disappointed; but two will suffice, and we mention them merely as curiosities of history. When, after many struggles, and much canvassing for subscriptions throughout the country, the royal commission was formed and incorporated by charter, its first act was to rescind a contract, optionally open to it, with Messrs. Munday, by which all risk or liability, upon pecuniary grounds, would have been avoided, thus 'resting the success of the proposed experiment entirely upon public sympathy.' This step probably alarmed the executive committee: it seemed, at least to them, to render the issue problematical; and they immediately, in a body, tendered their resignations. 'These resignations,' Mr. Cole says, in his introduction to the official catalogue, 'were not accepted; and some time elapsed before the executive arrangements were conclusively modified to meet the altered circumstances of the case.' Again, when the guarantee fund had been subscribed, and the Crystal Palace was on the eve of completion, Mr. Paxton, doubtless with the assent of others engaged in the anxious undertaking (for the step was not disavowed by them), published a letter to the prime minister, urging him to adopt the work on behalf of the public; that is, to pay the expenses out of the consolidated fund, and throw the doors open gratuitously, as at the Museum, and other public institutions. This proposition was fortunately not acceded to; and nearly half-a-million of money, in voluntary contributions at the doors—the greater part in shillings—has justified the refusal, and given convincing proof of the abundant efficacy of 'public sympathy' in a good and useful cause.

"The experiment of a gathering of the industry of all nations was a novelty, not only as regards England, but the world generally; for, although there have been many expositions of works and manufactures in France, Belgium, and other countries, and also, in particular districts of England, they have been wholly restricted to the products of the country in which they were held; and when, in 1849, the French minister of commerce endeavoured to promote an exposition in France upon a wider basis, comprehending the productions of other nations, the prejudices of commercial bodies to whom he communicated his views, dissuaded him from carrying out the scheme.

"Nor can it be denied, that when the proposal was made in England, and, indeed, long after that proposal was adopted as a fact, the manufacturing and monied interests of the country looked but coldly upon it, and gave it for a long time an unwilling countenance. Our men of Manchester, and Leeds, and Birmingham, may have thought—and thought with some shadow of truth on their side—that, in an intercommunication of industrial experiences, and a comparison of manufacturing processes with all the world combined, they had less to gain than to give; they may even have feared that their best machinery might be copied—their best hands lured from them; they may have thought, besides, that their business was already enough to occupy all their time and attention at home,

without making a show of it abroad; and as men of business, and Britons to boot, with something at stake in the land, they may just have shared ever so little in the numerous predictions of trouble and danger which were muttered forth, from time to time, as inevitably attending a large incursion of 'disaffected foreigners' from all parts of Europe. As for the agricultural body, they held aloof, because from their political religion they have little sympathy for the restless spirit of industry, which, in their view, has disturbed the harmony and order of our domestic polity, whilst improved methods of tillage, even supposing them to be possible, could only be made the pretence for reducing rents already much too low, and throwing upon the parish agricultural labourers, already much too numerous for the requirements of their respective districts. So little faith had the men of business and the men of land, as yet, in the realisation of 'the unity of mankind,'—in the enlightened and generous spirit propounded by the Prince Consort.

"On the other hand, there were enthusiasts—travelled men, doubtless—who took a very different view of the question, and advocated that view very authoritatively in the columns of an influential daily print. They disabused the artificers of England of their supposed superiority; they took the shine out of them 'a few,' as the Americans would say: they told them very plainly that they had much, had everything to learn from foreign taste; that, although they could make things very strong, they could not make them neat, much less elegant, according to the neatness and elegance of the continental standard;—that their calicoes were stout, but tawdry; that their chairs would last for ages, but that they were fashioned upon barbarous models of ages long gone by; that their doors and locks were effectual for the purpose of exclusion, but repulsive in aspect;—that, in fact, in all that related to appearance we were centuries behind civilised Europe.

"There were those again who took leave to doubt and hesitate as to the authenticity of these uncomfortable assertions. Old John Bull threw himself back in his easy chair, with his feet on his double-piled Axminster carpet, twiddled his thumbs through his snowy-white lawn shirt-frill, gazed vacantly upon the comfortable crimson flock paper-hangings of his *sanctum sanctorum*, and wondered what people could want more. Young John Bull, who had been his six-weeks' tour abroad, and had traversed the sandy plains of a Belgian *salon;* had tried his weight upon the uncomfortably-shaped rush chair of the French hotel; had admired the mysteries of a German door-handle, all primitive iron, and constructed upon the primitive principle of the first lever;—boldly denied it all, and wondered 'what they should be told next.' And certainly the result of the Great Exhibition has been to disabuse the mind of much of this stupid prejudice, handed down from father to son, and repeated by traveller after traveller, of the infinite superiority, in point of taste, of the foreign producer. In furniture we certainly have made a very good stand, in respect of appearance alone, to say nothing of solidity; and if, in every point, we have not equalled the quieter classicism of the French (the classicism of the Louis Quatorze period), we certainly have not been guilty of the excessive and misplaced decoration of the Austrian, nor descended to the crude conceits of the northern German artificers. As to our hardware and our machinery, we need hardly say, that we have shown ourselves, as we were always esteemed to be, without a rival. But we will not be led into making comparisons on other points, as this will be better timed when we have to review the awards of the juries in the several departments.

"To return to the point from which we set out. What are the great social advantages which we expect to result from the Great Exhibition of 1851, and in what manner will they conduce to that unity of purpose and interests among men which is so desirable? The advantages which we anticipate are, first, increased knowledge of our own resources, and of the resources of our neighbours, which, whilst it inspires a just confidence in ourselves, will also create a feeling of respect for others; secondly, recognition of the im-

portance of the principles of reciprocal dealing, by which the peculiar advantages of one community may be interchanged for those of another; finally, an enlarged field for commerce and the infusion of a more liberal spirit into commercial transactions, by which commerce will grow, and with it civilisation and peace be extended as the connecting bond of the whole human family."

We further cite the opinions of the press in the following article on

THE EXHIBITION AND ITS MANAGEMENT.

"If the novelty of the undertaking occasioned the promoters of it to be altogether unprepared for the vast success, in a pecuniary point of view, which has attended it, so it may excuse them for many errors of omission and commission, by which the opportunities which such an undertaking might have afforded, have not been turned to the very best account; and if we now proceed to review the management of the executive of the Great Exhibition, it is simply by way of providing a lesson of experience for the regulation of future undertakings of the kind which may occur in this country or elsewhere. Many of the sins of the executive may be traced to the simple fact of their want of means in the outset, and their doubt as to the amount of means which the sympathy of the public might place at their disposal. The project had to work its way into the favour and into the pockets of the public, and that against a strong tide of prejudice and opposition. And in this they had still a double task: they had to promise an alluring exhibition to the sight-seeing public, and they had, at the same time, to canvass the manufacturers and producers for contributions in aid of the general display; and we know that, in very many instances, it was not till the very last moment that the local committees succeeded in inducing proprietors of goods to send them in, and then it was very often done as a personal favour to the energetic agent. In the midst of all this doubt and struggle it was that Mr. Paxton's letter came out, which to all the world seemed very like a tender of resignation of business on behalf of the whole body; and by many of the Mrs. Candour and Backbiter families was exaggerated into an actual declaration of bankruptcy. Added to this was the rumour that the building itself was not water-tight, and could not possibly outlive the heavy rains at that time prevailing.

"In this critical position of affairs, the press, whose agents had been admitted to the inside of the building, and who reported its actual condition, and its gradual furnishing forth with goods of all sorts, from all parts of the world—the press, we say, came to the rescue of the apparently devoted enterprise; and many British producers, who had hitherto held aloof, found themselves forced or shamed into sending in contributions to compete with those so abundantly transmitted by foreign rivals. One little month of tolerably fine weather,—one little month of newspaper spoon-feeding, changed the whole aspect of affairs. Season-tickets were eagerly bought; and when it was announced that her Majesty would give her solemn sanction to the great principle involved at bottom in the project, and honour the World's Industrial Congress by inaugurating its proceedings in person, the public, as publics will, became worked up to the wildest pitch of excitement—and filled with anxiety to obtain ingress within the walls of the Crystal Palace, which now promised to be fashionable. And here the commissioners committed, or meditated the commission of, two grave errors, one upon the other; though they were fortunately prevented from carrying either into execution by the loud and unanimous voice of public opinion, and the good sense and good feeling of the Queen and the Prince Consort. The one was the proposal that her Majesty should inaugurate the greatest public institution of modern history in private, attended only by the commissioners and a retinue of beef-eaters and policemen in private! Let those who recollect the vast and animated assemblage, which cheered and roared with ecstasy when the Queen of 'Merry

England' walked along the main avenues of the Crystal Palace on that glorious 1st of May, and then the shout of exultation when she declared the Exhibition open, contemplate the amount of *lèse majesté* and the depth of ignominy which would have been involved in denying her Majesty and her loyal subjects and foreign guests the heartfelt pride and satisfaction of that day's ceremonial! The other error of the executive, at this time, when it was determined that the public should be admitted, was the attempt to make a show of royalty, by raising the price of season-tickets—an attempt which, as soon as it came to the knowledge of the Prince President of the commission, he very promptly reprobated and prohibited.

"The exclusion of exhibitors was an error—a serious error, as regarded the enjoyment of the public, the results of the Exhibition, and the interests of the exhibitors. And this injustice, this stupid blunder, was perpetrated and persisted in, in the same paltry spirit which devised the idea of setting a premium upon the gracious smiles of our Queen; which farmed out the responsibility and privileges connected with the publication of the catalogue as a property, instead of working upon it as a labour of love tending to the honour and usefulness of the whole undertaking; the same spirit of penury which farmed the monopoly of retailing tea, coffee, ices, and 'other light refreshments,' at heavy rates of charge, and to caterers who insisted upon demanding a penny for a glass of 'iced water' to wash down a thimblefull of ice, in face of the announcement that 'water is given away' (water uniced being never to be had); the same spirit of penury in which, up to the last day, a deaf ear was turned to all suggestions for an abandonment of, or even a reduction upon the absolute shilling, on behalf of numerous industrious classes—as policemen, omnibus-drivers, public schools, &c.—who had but few opportunities of participating in the intellectual enjoyments of their fellow-citizens; the same spirit of penury and pence-gathering which originated many a little job, to the disparagement of the pubic interests, the lessening of their enjoyment of their own Exhibition—for was not the Exhibition the public's own, when it was made up of voluntary contributions from the manufacturing community, stored in a house built upon public property, and rescued from all risk of failure by the shillings of the multitude? All that the commissioners can lay claim to is the glass-house—and that they only had through a happy accident; and that they wanted to get off their hands before the time arrived for opening its doors. The bare walls were thrown open to the public, and the public provided the entertainment, and found the company and the money. How little the commissioners have done to reciprocate the liberal spirit of the public—to promote the interests of exhibitors, which was a secondary inducement—and the interests of science and knowledge, which was the paramount inducement to the undertaking—are questions which are very fairly debatable by public journalists.

"In assembling together the richest assortment of natural products and manufactured wares, of machinery and philosophical instruments, from all quarters of the globe, which the world ever saw collected together, the first step was taken to the acquirement of a full knowledge of the state of human science and industry over the whole face of the globe; and the materials so obtained, if properly made use of, would have formed a complete store of practical knowledge, a perfect encyclopædia of human intelligence, which would have been invaluable as an authority—a starting-point for the future. But how, if half these productions were promiscuously thrown together, badly classified, and therefore unattainable without guides or direction-posts?—how, if many of them were so enclosed under glass cases that it became impossible to examine their properties?—and how, it the peculiarities of nine-tenths of them were unintelligible to the general observer without explanation from the owner or producer?—and how, if the owner or producer was excluded from the privilege of presiding over the portion of the intellectual banquet which he had

provided? Why, in all such cases, the Exhibition became an unprofitable and provoking blank and a delusion—unless, indeed, the executive, who had driven away the legitimate and natural guardians of the various objects, had taken the task of expounding their properties upon themselves. But they did no such thing. They sold their birthright in the catalogue for a mess of pottage (£3,200, and a 'royalty' of twopence upon every copy sold in the building), as a commercial speculation. And when, in the excitement of catering for advertisements, the contractors forgot to take the necessary steps, and engage the necessary assistance to collect and arrange the contents of the catalogue; when the catalogue was discovered to be a heavy humbug, from which no information could be obtained; and when the 'second edition,' and the 'second corrected edition,' and each succeeding 'corrected edition,' was found to be as unintelligible as the original Simon Pure; when, in despair, the public—having spent successive shillings in successive visits and successive purchases of catalogues, and guides, and hand-books—still rushed wildly and hopelessly about, inquiring for class A 995, or the naval architecture department, or the raw produce department, what did the commissioners do? They issued a hand-bill, in which they announced that they had found out another job, involving another shilling's-worth at their disposal, and had already farmed it to an enterprising commercial company. This document, which deserves to be kept as a matter of history, ran as follows:—

"'Crystal Palace.—Approved and qualified persons to act as guides, showing visitors through the building by the hour. Particulars:—Parties not exceeding three—first hour, 2*s.*; every other hour, 1*s.*: parties not exceeding six—first hour, 6*d.* each person; every other hour, 4*d.* each person. N.B.—The person acting as guide will show all the principal objects in the building. Apply to the superintendent at the south entrance.———— Office,—— street, City.'

"After this, to ask your way,—to ask the simplest question of a policeman, or any functionary in the building, was constructively an infringement of the rights and privileges of the guide company; and such applications were very properly met with the reply—'There are guides appointed; and if you want information, you must pay for it.' The foreign exhibitors, particularly the French, with their older experience in expositions and bazaars, perceived the importance of having some one on the spot to display and explain the merits of their wares, and have generally done so at the cost of a season-ticket; and, as a consequence, a very striking contrast has been presented between the aspect and atmosphere of the foreign and the British departments. In the former, you were greeted with the blandest of smiles, welcome to examine, invited to touch—we will not say urged to purchase—the various beautiful objects which, without such means of scrutinising, might have lain as dead lumber in an outhouse, for all the spectator cared: in the latter, with few exceptions, all has been still-life—a huge town of shops without a shopman amongst them; and if you did but look a little closely, and pull out your pocket-book to make a note, one of the thousand extra policemen appointed for Exhibition purposes interrupted you with an authoritative 'You must not copy anything;' and if you did but lay a finger upon pot or plough-handle—good gracious! Scotland-yard forbid! We do not exaggerate one iota in this statement; for annoying incidents of this kind have occurred frequently to us in the course of our critical vocations. And with respect to the locking-up of goods, we will only instance one branch of manufacture—that of locks and keys, upon which we were anxious to obtain all the information we could for publication in this journal; yet, although we have made a dozen journeys to the hardware department, and hovered anxiously about the glass cases, filled with some five hundred different kinds of infallible locks, we have not, to this day, been able to inspect, or obtain any information concerning any one of them.

"The regulation prohibiting the affixing of prices to articles exhibited, might have

had something to recommend it in the eyes of the commissioners; but, upon the whole, it appears so clearly to be at variance with the grand object of the Exhibition—that of obtaining and promulgating information upon all points relating to the manufacturing interests and processes, both of ourselves and of other nations—that it ought not to have been persisted in after its impolicy had been pointed out. And surely the price at which any article may be produced is an important element of the value of the process by which it is produced; and to deny the manufacturer the privilege of announcing this particular, was as absurd as it was unjust. The exhibitors, however, soon got over this difficulty, by resorting to the distribution of prospectuses, with priced lists of all their wares (we have one by us, wherein an Irish earl recommends his tile-bricks), and steam-presses in one part of the building, were kept hard at work, throwing off reams of puffs for exhibitors in other departments; and the executive committee have been so amused and gratified with this contravention of their orders, that they have set about collecting, in the building itself, fifty copies of all the puff-mongery of the Great Exhibition, for the purpose of being bound up and deposited in the Bodleian and other public libraries! In addition to this, the agents for the foreign departments very early resorted to the expedient of printing 'priced catalogues' of their goods; the Zollverein, Russia, Saxony, Austria, have each their hand-book, completed with their details of £ *s. d.*; and very interesting they will be, as materials for a new edition of the 'History of Prices;' but when it came to the turn of the British exhibitor, he was referred to Messrs. Spicer and Clowes, 'the contractors,' who demanded a shilling a line for the insertion of the descriptions and prices of their goods. In short, the Great Exhibition has been converted into a great job, and all its minutest details have resolved into jobs smaller and beautifully less.

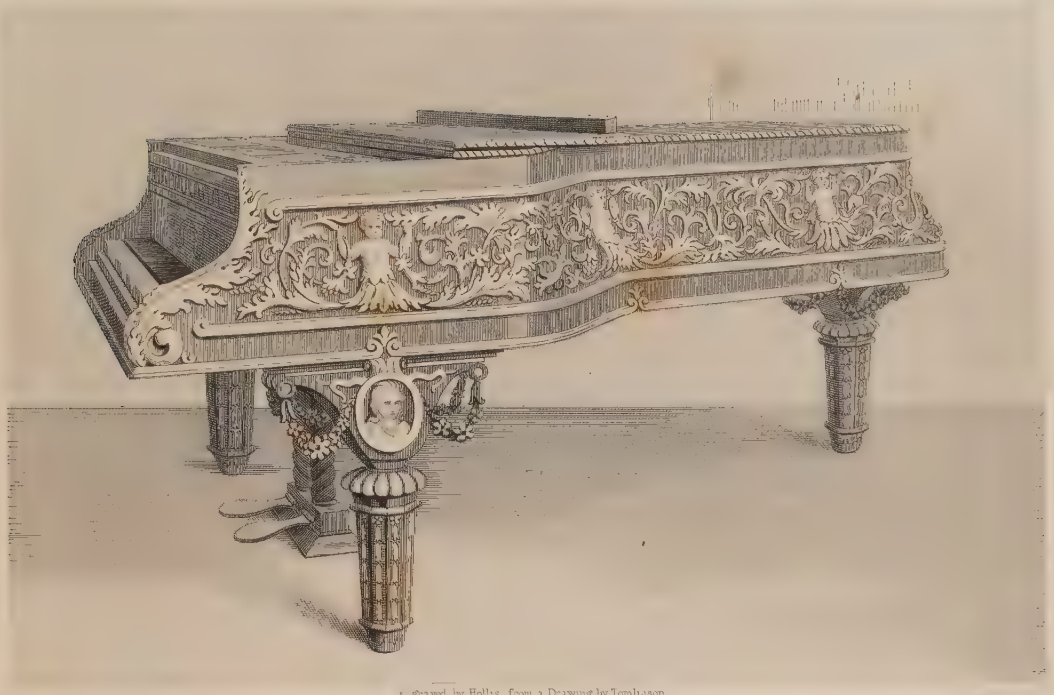
"We have not left ourselves space in this article to review the general contents of the Exhibition, and to see how far they filled up the scheme which the mind's eye might have framed for it. We cannot help observing, however, that they have been wanting in many essential particulars, and were too generally not disposed to advantage. The manufacturing appliances of this country, which ought to have been the principal features of the whole affair, have been very inadequately represented; many branches of manufacture wholly absent; and the machinery which was sent in, consigned to a sort of back-shop, where they were crowded together, without order or arrangement, without space between them to inspect them in operation; and many of them—Nasmyth's steam-hammer, to wit—not in operation at all, owing to the want of steam. The collections of raw materials, instead of being classed in groups comprising the various contributions from all parts, and those groups in convenient proximity to the machinery which respectively related to their manufacture, were scattered about in all directions, generally in the backways, in such a manner as to be utterly useless for the purposes of scientific research. Our vast navy and commercial marine; our ship-building has been wholly unrepresented, with the exception of a toy model of the *Queen*, in the transept, and a few models of life-boats stowed very carefully out of sight, in the rear of the western gallery—a seclusion in which we only discovered them after many a fruitless voyage of discovery. The exclusion of works of painting from the scheme of the Exhibition we have already, in a previous article, commented upon, as most ill-judged. If it did nothing else, it converted the so-called fine art court into a mere toy-shop—an object of ridicule to all observers of mature age.

"In short, money-getting being the object, everything was sacrificed to show and sound; the most gaudy inutilities and common-places were thrust into the foreground, and plain usefulness was ordered to the rear, to shift for itself where it could. Trophies of silk and trophies of glass, trophies of tapestry, trophies of timber, trophies of feathers

astonished open-mouthed gapers at every point along the main avenues, who, perhaps, forgot that all these trophies were only made up of very common ingredients, which might be examined in detail in the shops of Bond-street and Oxford-street. Koh-i-noor diamonds, jewelled hawks, court jewels from Spain and Russia, and gold and precious stones (the spoil of Eastern dynasties now extinct), were added by the liberality of their respective owners 'to make up a show,' and to divert the dazzled multitude from the more utilitarian and instructive purposes of the Exhibition. The foreign departments again took the lead of us in an important element of stage effect; the national colours were suspended over the various departments, and the 'effect' so delighted the executive committee, being an inexpensive addition to their shilling show, that they gravely penned a circular to all the principal contributing towns in Great Britain, begging them to send up flags emblazoned with their respective arms, wherewith to decorate the British nave!

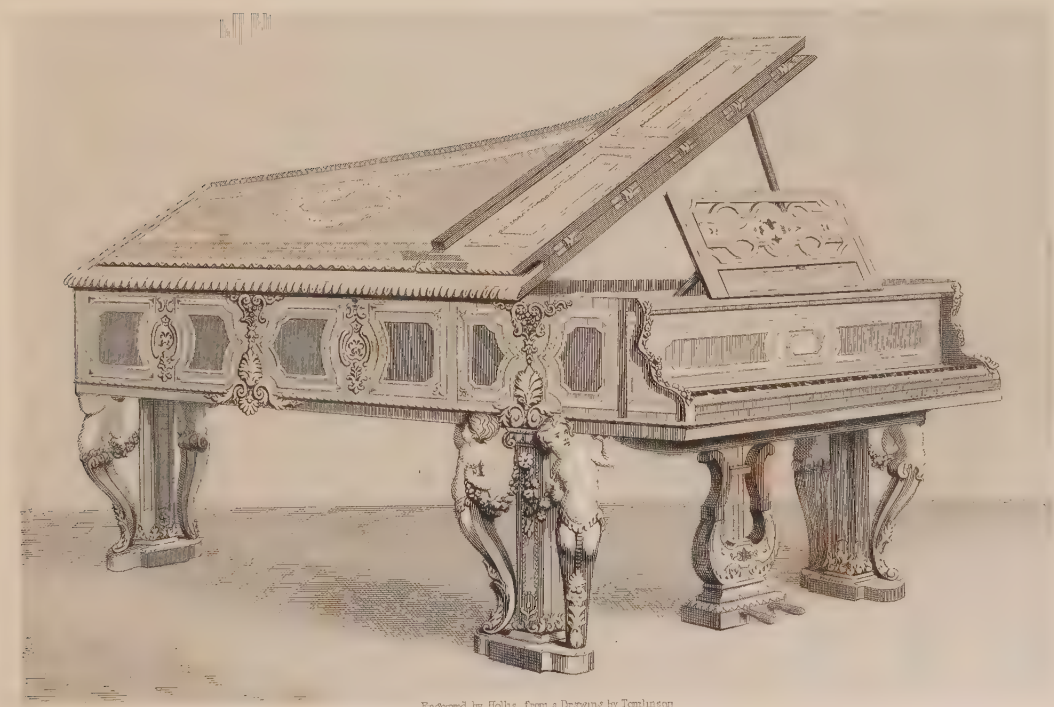
"Is it to be wondered at, that, conducted after this principle, the Great Exhibition of Industry became, to a great portion of the multitudes who thronged its avenues, an idle lounge—a huge bazaar—a covered Regent-street—a promenade *concert monstre?* Those dread organs—north, south, east, and west, and that dreadest of all in the foreign nave, all thundering in perpetual competition; those jingling pianos, in every highway and byeway, and nook and corner of the building; here musical bells, with a mob of idle listeners; and still prevailing through the general din, that Herr *Tonnerre,* who, according to daily advertisements, daily, for four long hours, played popular opera airs and polkas upon his *Tonnerrophone,* an instrument which (quoth the *Daily News*), 'although of comparatively small size, is of tremendous power and compass—the tones completely filling the vast edifice.' None but those who have been subjected to the influence of this colossal Babel, can imagine the bewildering effect; none who have, will ever forget it.

"Amidst this state of things, the press again came to the rescue;—its various agents prying and scrutinising in all quarters, and in spite of many difficulties, proceeding to unravel the web of confusion in which things left to shift for themselves had resolved themselves, to drag from concealment and expound to the reading public objects of real importance, which otherwise have been in a great measure overlooked; and by their labours they have preserved materials which will prove of value in aid of the history of art and of the progress of society. On the occasion of any future Exhibition of the kind, however, those who have the management of it will do well to avoid some of the errors of judgment on which we have felt it our duty to animadvert in the foregoing columns." And this leads us to the consideration of one error, which is of so important a nature that it demands a fuller investigation and a more deliberate censure than we can bestow upon it at the end of a chapter. We shall therefore begin a fresh one with examining into the propriety of excluding pictorial art from the walls of the Crystal Palace.



Engraved by Hollis from a Drawing by Tomlinson

BROADWOOD'S GRAND PIANO



Engraved by Hollis from a Drawing by Tomlinson

ERARD'S GRAND PIANO

PURCHASED BY LOUIS NAPOLEON FOR THE EMPRESS OF FRANCE

CHAPTER XIV.

PICTORIAL ART—ITS EXCLUSION FROM THE GREAT EXHIBITION—THE ROYAL ACADEMY—ITS ILLIBERALITY—ROMAN AND PARISIAN IMPARTIALITY—PUBLIC OPINION, ETC. ETC.

WHEN the question of the fine arts was agitated, as doubtless it was, in the council of the Great Exhibition; when it may be presumed that the claims of painting were as ably put forward as those of sculpture, and that in the president of the Royal Academy they would both find an able as well as an impartial advocate, how was it that in the one case they should be admitted, and in the other altogether rejected?—that the productions of the chisel should be received with honourable distinction, and placed in imposing situations in the Crystal Palace, while those of the palette were ignominiously rejected, and denied all admission within the envied precincts. Where, we ask, was the presiding genius that should have watched over the interests of the fine arts, when so strange a resolution was adopted? Where was the pleading voice that might have been expected from the members of the Royal Academy in behalf of their neglected art, at so momentous a juncture? To what cause are we to look for the noninterference of the president and members of that self-elected and irresponsible body in a matter so important to their own pursuits? or did they really join in proscribing the productions of their own genius from any participation in the renown that the praises of an admiring world might have bestowed? Can it be supposed that any selfish motive actuated that irreproachable assembly, the *élite* of connoisseurship? Are we to imagine that any possible feeling of distrust could arise in their minds at being submitted to equal and no greater advantages in the Exhibition than their untitled brethren in the broad field of art? It is true there would, we presume, have been no special privilege in that Palace of Truth, no line of demarcation between the simple exhibitor and the gifted R.A., as is the case in the halls of the academy, where the best lights, and the most conspicuous situations, are invariably appropriated to their own members, while their less fortunate brethren are thrust into obscure and deteriorating localities. And here it may not be inappropriate to say a word or two upon the different manner in which exhibitions are conducted in other countries, and the far more liberal treatment the artist experiences abroad than he does at home. In Paris and in Rome, after the exhibition has continued one-half of its destined period, it is closed for a short time, and the situations of all the pictures are changed; those which were in the best and the most prominent situations are made to exchange places with those which previously occupied the less favourable ones; so that every one in turn receives the same impartial justice. Would our academicians be less eminent artists, were they to follow so praiseworthy an example? We are of opinion that whatever tends to refine and ennoble the mind conduces to the perfection of art.

But to return to our subject. In the long-extended aisles and galleries of the Crystal Palace there was

"Ample space and verge enough"

to satisfy the requirements of all who aspired after the favour of the public. Enough in that glorious edifice to have realised the glowing description of the poet, in his fancied "Castle of Indolence," where, as he tells us,

"Sometimes the pencil in cool airy halls,
Bade the gay bloom of vernal landscapes rise,
Or autumn's varied shades embrown the walls:

Now the black tempest strikes th' astonish'd eyes,
Now down the steep the rushing torrent flies;
The trembling sun now plays o'er ocean blue,
And now rude mountains frown amid the skies:
Whate'er Lorrain light touch'd with softening hue
Or savage Rosa dashed, or learned Poussin drew."

And what transcendant glories might not the genius of painting, in all its various branches, have shed around the favoured limits? What realisation of these "cool airy halls" might not the taste of the directors have effected in the imposing edifice—even to the soft accompaniment of murmuring fountains, and the delicious notes of that harp of Æolus, whose music, as the bard assures us, "soothes to rest the melancholy mind."

Unquestionably the public were greatly disappointed, and many were the complaints and expostulations that were heard in every quarter. Among them we select the following remarks, which appeared in the columns of an able contemporary:—

"The exclusion of the painter's art from participation in the scheme of the Great Exhibition was an error of judgment on the part of the commissioners, which it seems utterly impossible to account for. At a time when the application of decoration upon the true principles of design is being attempted, under the auspices of government committees, not only in the palaces of the nation and the houses of the great, but also in the more humble abodes of the middle classes (through the operation of schools of design)—at a time when furniture, dress, and utensils for the table all come in for a share of the improved taste of an age ambitious in art, it seems an act of fatuity, when preparing a Grand Exposition of the Works of Industry of all Nations, to exclude from the lists that very branch of art which affords the highest resources for decoration, as well as the most abundant and varied examples both of composition and colouring. The assiduity and interest with which the thousands who thronged to the Exhibition in Hyde-park examined the miscellaneous contributions of sculpture from all nations, must assure us that the masses are susceptible of enjoyment from the contemplation of works of fine art; and although many of the specimens here presented to them fall far short of the standard of excellence, and although the impromptu criticisms of the multitude, by no means evince an advanced taste, yet we feel so much confidence in the ultimate triumph of truth, which in art is beauty, that we are inclined to look for practical good results even from this scrambling course of self-education, amid a sort of wilderness of wild flowers.

"And if good so result from observations on sculpture obtained in this way, by millions who never saw a work of sculpture before, how much more useful to them would be some notion of the principles and practice of painting, involving both composition and colouring—an art much more intimately and generally applicable to the purposes and requirements of social life;—and if a comparison by the more critical portion of the community of the works, we can hardly venture to say the schools, of sculpture of various nations, be interesting and instructive, would not a similar comparison of works of painting be at least equally so? The importance of such a comparison to English art it would be impossible to overrate, when we reflect upon the comparatively short and chequered career which art, since its revival, has had in this country. It is scarcely more than a century and-a-half that art has held any position amongst us; since Sir James Thornhill, starting in rivalry to La Guerre, the favourite decorator of the mansions of the nobility of that day, received a commission from the state to paint the interior of St. Paul's Cathedral and the hall of Greenwich Hospital, in which he was assisted by a German named André, and which he contracted to do at the rate of £2 per square yard! It is not a century since the first attempt to establish an academy of art was made, inau-

gurated by the learned and admirable discourses of Sir Joshua Reynolds; and in the course of that period, what have we done towards the formation of a school of art?—what definite purpose or rules of taste have we arrived at? The answer to these questions must be given by a silent and significant pointing to the walls of the various exhibition-rooms in Trafalgar-square, Suffolk-street, and Pall-Mall, where all has long been caprice, and glitter, and wild confusion, and where now a portion of our exhibitants seem to seek for unity of purpose, by devoting their pencils to a miserable copyism of the poorest mediæval models. Thus, whilst in little more than two centuries (Giotto died in 1336, Raffaelle in 1520), revived art in Italy arrived at its highest point of excellence and power under a Raffaelle, who founded a school which, in the persons of a Giulio Romano, a Garofalo, and a Parmegiano, survived some time after him—in England, in about the same period, after various unconcerted efforts, and fostered by much indiscriminating patronage, we find art, having never once attempted a flight of the highest ambition, degenerating at once into the stiff and inanimate mannerism of the twelfth and thirteenth centuries."

But hold! our readers will perhaps ask, why we have repeated observations which have already been quoted in an earlier portion of our work? We might perhaps shelter ourselves under the customary excuse on such occasions, pleading upon high authority that even—

"Aliquando bonus Homerus dormitat;"

but we are content to rest our apology on the exceeding fitness of the quotation to the subject immediately before us, and which indeed, as it appears to us, warrants its introduction a second time, even at the risk of our being reminded of the pseudo-moralist in the *Vicar of Wakefield*, who astonished and bewildered the good Doctor Primrose with a repetition of his learned and abstruse theory on cosmogony, or the creation of the world. Be that, however, as it may, we will now altogether quit the pages of our contemporaries, excellent as they are "in matter, form, and style," and enter, ourselves, upon the field of discussion, *in propria persona.*

To resume the thread of our discourse, then, we will enquire what was the consequence of this barbarous exclusion of pictorial art—this prohibition of the noblest efforts of the pencil and the burin from the walls of the Crystal Palace, and consequently from all hope of participation in the expected triumph that might follow? Why, as might have been foreseen, the genius of painting, opposed in its legitimate course, like an impetuous stream whose waters are suddenly checked by some insurmountable barrier, had to find its own way through a thousand petty outlets that only terminated in the quicksands of disgrace and disappointment. Instead of the ample breadth of canvas, whereupon to enrol the deeds of chivalry or historic action—to trace the fair features of nature in all her varied aspects—to realise the visions of poetic inspiration,—the disappointed artist was obliged to substitute such sorry materials as tin, glass, plate-iron, or pieces of Dresden or French porcelain, whose hard and glassy surface but ill repaid the labour that was bestowed upon it. The Mosaicist, however, was a privileged personage, and what it was in the power of his art to effect, he did creditably enough; but after all, what is his hard and laboured work, produced by patient industry and mechanical labour, to the fervid expression derived from the pencil and palette? Fresco painting being also among the prohibited arts, was misrepresented and caricatured in divers "stereochromic" pictures from Munich, gaining furtive admission, in lieu of nobler productions, on the plea of their being executed on a perfectly novel material, composed of wood and mortar. Moreover, in the very face of the prohibition issued by the council, a member of the Royal Academy, and a knight to boot, had the address to smuggle several of his miniatures into the Crystal Palace, upon the plea of exhibiting a new mode, of his own invention, of joining pieces of ivory together

so as to form a large sheet. Another worthy member also sent in a picture, protected by Rowney's silica colours, the merits of which it professed to display. Several enamel paintings also gained admittance, under what pretext we are really unable to say; engravings, too, which also laboured under the ban of prohibition, somehow or other found their way to the walls and counters of the Great Exhibition—

> "Thick as autumnal leaves that strew the brooks
> In Valombrosa."

In short, all that was inferior—all that was trifling and insignificant in pictorial art, gained easy access to the forbidden palace; while every noble, every lofty endeavour was excluded with the most jealous scrupulosity and relentless hostility.

Let us for a moment suppose—and the idea might easily have been realised—that a sufficient portion of the vast avenues of the Crystal Palace had been properly arranged and set aside for the purpose of exhibiting and comparing the various productions of pictorial art among all nations, and that space had also been found for specimens of the various schools of painting that have prevailed at different periods. What a delightful, as well as instructive gallery might there not have been formed, compared to which the long-extended Louvre, the Florentine and the Vatican chambers, and the vast emporium at Munich, would have shrunk into insignificance. Materials would not have been wanting to its formation: in our own country, scattered among the numerous palaces of our nobility, are an infinite variety of the most esteemed works of the most renowned artists—gems, compared to which the glittering diamond and the gaudy trinket would be valueless in the eye of refined taste and sober judgment. And the possessors of such inestimable treasures of art have always shown themselves ready to submit them, at all fitting times, to public inspection: it could not, therefore, have been reasonably doubted that they would have scrupled to do so on an occasion so important as the grand National Exhibition alone could offer. And of what value, we repeat, were all their gold and silver, their barbaric display of diadems, sceptres, necklaces, and gaudy trappings, in comparison with the glorious treasures of art that might have been gathered together, and by which the imagination and taste might have been elevated and purified, and the judgment corrected and improved? The præ-Raffaelites might have then been appreciated at their just standard, and Giotto, and all the worthies of his school, might have entered the lists with Raffaelle, Correggio, Titian, and Giorgoni; if, indeed, they had courage enough to face such adversaries—a not unlikely piece of assurance, backed as they have been by the adroit pen (more fanciful than true) of the learned and ingenious Mr. Ruskin. Rembrandt, too, and all the magnates of the Dutch and Flemish schools, might have delighted the world by their charming effects of colour, their exceeding truthfulness, and their obedience and submission to nature in all her moods; and it might have been shown how far, and in what respect, the artists of modern times have equalled or surpassed their renowned predecessors. Claude, likewise, whom the above-named critic so injuriously undervalues, might have had a fairer chance of outvying the ambitious Turner than has been afforded to him in our own National Gallery, where two of the worst performances of Le Lorrain, are invidiously placed in immediate juxtaposition with the acknowledged *chef-d'œuvre* of the English artist.

We have been thus diffuse upon this unpleasant topic, not that we delight in exposing errors that are past, and consequently irremediable, but that we entertain a hope that our expostulation may be listened to as respects the future. Let a voice, then, be raised, if it be not already too late, in favour of pictorial art in the new Palace of Industry, which, phœnixlike, has arisen in more than its pristine magnificence and beauty, from the ashes of that which is departed; and, as it is proposed that the building should be permanent

let it be hoped that so important a desideratum as that of the exhibition of the noblest productions of imaginative genius may not be omitted in the final completion of the mighty undertaking; let it be hoped, on the contrary, that it may become an inexhaustible studio, where, amid the masterpieces of antiquity, the painter may derive new lessons in his art, and the mere spectator find unceasing gratification;—moreover, in thus placing before the eyes of the public such testimonies of unrivalled excellence, a better taste may be gradually fostered and diffused, and a desire arise for superior embellishments in the interior of houses than is at present supplied by the showy decorations of the upholsterer and the paper-stainer.

CHAPTER XV.

APPROACHING END OF THE GREAT EXHIBITION—PUBLIC OPINIONS—TRIENNIAL EXHIBITIONS—PERMANENCY OF THE GREAT EXHIBITION ARGUED PRO AND CON—THE PAN OF THE WOODS AND FORESTS—HINTS IN FAVOUR OF PAXTON—PUNCH'S DREAM.

Solomon, the wisest among the sons of mortality, has told us there is a time for all things; he has also told us, with equal truth, that they all have their appointed end. "Time and the hour run through the roughest day," aye, and the smoothest too—the relentless scythe mows down the rock-founded tower as well as the humble, straw-built shed—animate with inanimate forms alike yield to the assaults of the arch-destroyer;—man himself, who plans for futurity, is the creature of an hour; no rank, or dignity, or power can insure his brief existence beyond its allotted date—

> "Pallida mors æquo pulsat pede pauperum tabernas,
> Regumque turres."

His works, too, yield to the inevitable law—the more brilliant they are, the more transitory; like the lightning's flash, or the milder splendour of the rainbow, they brighten on the eye but for a moment, and only exist for the future in the memory of the beholder.

These and similar reflections crossed our mind on the rumour that began to spread abroad of the approaching fate of the Crystal Palace. That so wondrous a fabric should so speedily be destroyed; that all its glories should vanish, at first excited a universal feeling of grief and alarm: by degrees, however, men began to reason on the subject, the matter was fairly discussed, and at length the public were brought to acquiesce in the fitness of the measure proposed. Among the variety of opinions expressed on the occasion, through the medium of the public journals, we have selected two for our readers' perusal; and as they present entirely opposite views, they may serve to show the general style of reasoning on the all-important topic.

And first we offer for perusal the following grave arguments, from the pages of a scientific contemporary:—"The public mind continues very undecided as respects the utility of the Great Exhibition. No one exactly knows what to say about it; and, rather than give an adverse opinion, each asks his neighbour, what he thinks of it? One says, 'Why, sir, it's my advertising van; I have got so-and-so there, and have had some capital orders!' Another sounds a different note: his gloomy looks foretel the lugubrious answer, 'Well, sir, the fact is, business has fallen off sadly since people have taken to

spending their time and their money at the Exhibition! The million, all cheerful, pronounce it the most beautiful thing that ever eyes were set upon!'

"We think this contrariety of opinion is easily to be reconciled. The Exhibition is one great wonder; and wonders always please the public. But they who think, and read or write, and are the greatest grumblers the world possesses, are very fastidious to have everything practical as well as wonderful. Now, the Exhibition, like all human inventions, has its defects. It is true we see and learn much; but do we not likewise miss a great deal? The engineer finds everything but what he wants. The spinner hears only the oft-told tale, and finds nothing new. The agriculturist is disappointed, having seen something far superior at 'the show' in his own county. The sculptor observes perhaps a gem or two of art. The artist finds but a meagre sprinkling of works to his taste. So they run on, criticising, each in his own department. And is it surprising that disappointment should exist when we consider that an exhibition has been turned out of doors, in applicants too late, and exhibitors too numerous to be admitted? Hence arise the many gaps observable on endeavouring to form a consecutive series of any particular branch. For example, neither manufacturers generally, nor the patentees of this country in particular, are represented. Again, the gas engineers, a large body, have, by one consent, withheld their various improvements to form a distinct exhibition. So that a foreigner visiting the Exhibition, supposing he would there behold the works of every able artist and manufacturer of any celebrity that this country affords, would be woefully mistaken. Or, if he even supposed that there, at least, a case of mere puffery was not to be found, he would be equally in error. It would be well if it were otherwise. But the best, and indeed only, remedy for the evil, is to afford accommodation for the exhibition of all our home manufactures, at stated periods, say in the manner we shall proceed to propose.

"Such exhibitions as the present one are too unwieldy for repetition beyond intervals of nine or ten years: shorter periods have been suggested, but we feel persuaded that a lengthened interval is preferable. At the same time, to keep alive the interest in exhibitions of national art and industry, we should recommend two intermediate exhibitions formed of these only, possibly displayed in a permanent building, mainly erected through the medium of funds raised by the present Exposition. By being thus not too frequent, the manufacturers of Great Britain could avail themselves to the fullest of the advantages offered. Our scale would, therefore, give the years of the Exhibitions as follows:—

"1851. First Exhibition for All Nations.
1854. „ „ United Kingdom.
1857. Second „ do. do.
1860. „ „ All Nations.

"In the erection of a permanent building a plan could be arranged for rendering portions available for the different objects of meetings, concerts, exhibitions of paintings, &c., for which the Glass Palace is altogether unsuited. At the same time, while we seem to censure, we must in all candour admit that the Crystal Hall of Nations is a structure beyond all praise, as a noble, beautiful, yet fragile mansion. It must not be permitted to decay, much less to be profaned to vulgar uses. It must not either be viewed in the light of a building based on a rock, or as if built of marble or granite. It is frail as beautiful. Its galleries vibrate to the tread of its thousands of visitors. The barometrical mercury dances as though it boiled; waxen flowers nod as if bowed by gentle zephyrs; and, under their glass shades, delicate gold and silver statuettes tremble as if imbued with life. It must not incur the liability to censure to which the winter's blast and wild hurricane might expose it; nor yet experience its fierce hail or its

harsher thunder-storm. It must not become the subject of dilapidations, probably, too, without an adequate fund to maintain repairs. Already it has received an almost prophetic warning, though all the alarm created arose only from an ungovernable balloon passing over the transept close enough to demolish a few flag-staffs.

"Such a building, capable of comfortably accommodating far above 50,000 persons, and looking deserted when a quarter of that number assemble, must not offer the mortifying result of seeing only hundreds where now thousands congregate daily, and all day. The question of expense in erection may be urged, with some show of reason, against taking down the present framework, and denuding it of its boarded sides, and floors, and glass roofing; but with no great judgment, when it is recollected, among other objections already hinted at, that the present erection is too spacious for any other object that can be devised as suitable or desirable. Besides, to whatever other purposes applied, it must, for a long time, have to contend with the prejudice gained from the contrast now so favourable to raising it in public estimation, compared with any other light in which it could hereafter be seen. Oh, mighty falling off indeed! Where, then, will be the beauty, wealth, utility, the admiring throngs of 1851?

"Let, then, the present building come down. Let it live and die a glorious day-dream. Our children's children may wonder whether it really ever existed, and may view the green sod pointed out to them in Hyde-park as but another nursery tale. Never mind: let it end as it began—a wonder. Arrangements might be early made for a substantial building, for which most of the materials now employed would become serviceable. Thus a great public good would be achieved; the Crystal Palace maintain its honour and glory, and be long embalmed in the memory of the age and youth of either sex throughout every quarter of the civilised world."

We now turn to the effusions of a more sprightly moralist, whose brilliant satire affords hebdomadal delight to all parties. Long, O glorious *Punch*, may'st thou continue thine inimitable pasquinades. But that the quotation were scarcely worthy of thine exalted merit, I would hail thee, in the words of the author of the *Dunciad*—

"Teacher at once, and zany of the age!"

But to the point:—

"Shall the Crystal Palace stand?—Are we to take to ourselves the closing ceremonies of the Exhibition as sad, dull presages of the doom of the wondrous fabric itself—a doom resolved upon, and relentlessly pursued by the stern wisdom of the great Pan of the woods and forests? If so, most pertinently, most admirably, were those ceremonies ordered: for the very genius of dumpishness, of sullen wilfulness, presided on the Saturday, and on the final Wednesday. Not a man appeared in the lac-a-daisical pageant, not one, from the prince to the bishop, but dulness marked him for her own. Authority seemed to be remorseful of the jocund bearing held on the 1st of May; and therefore did a sort of dropjaw penance on the 15th of October. Humdrum was paramount! And the skies sympathised with human gloom, making all as dim and comfortless without the crystal walls, as authority was dark and glumpy within. A loyal superstition attributed the wet and murky weather to the absence ot the queen. Had she graced the pageant, all would have been light and *debonnaire*, her majesty, according to the cheerful faith, being a concentration of sunbeams.

"But the fact is now unalterable; and let us, as sober, melancholy, mind-the-main-chance Britons, rejoice thereupon. We have redeemed our character—our inalienable right—of dulness. If we did not lose somewhat in unseemly gaiety on the 1st of May; have we not recovered ourselves in the substantial stupidity of the 15th of October? If we did mum and flaunt it in the spring, to the astonishment of the stranger—who

wondered much at jocund Bull!—have we not returned to our national sackcloth, our characteristic ashes, in autumn? Yes; we hope we have redeemed ourselves in the doubtful opinion of the foreigner. We have every faith that the stranger will depart from our shores with the strengthened conviction, that when John Bull in authority makes up his mind to be freezingly cold, and substantially sullen, he may triumphantly compete with all the human race. There was, as the closing ceremonial was acted, one prize medal wanting—a medal, with a whole pig of lead in it, for the dumps. And this medal—who can doubt it?—must have been carried off by the royal commission.

"And yet there may have been a kindness intended in the gloom of the ceremony: benevolence may have lurked in the doldrums of authority. The utter blankness of meaning with which the Exhibition was declared at an end, may have been studiously, yet, withal, tenderly affected to prepare us for the grand consummation of the most profound, the most triumphant, and most barbarous stupidity (spiced somewhat with wickedness), that ever made ape kind gape at mankind;—to wit, the destruction of the last wonder of the world, the marvellous fabric that, at a glance, has won the homage of millions. Not that the sensibility, masked in coldness, of authority, was all undignified by a high, patrician philosophy; a stoicism that would see the crystal wonder break into nothing, like a prismatic soap-bubble. Not, moreover, that Lord Seymour is to be thought the great original of official insensibility: oh, no—

"'*Ere* wild in Woods *that* noble savage ran,'—

we had many and many high examples of the rabid contempt of office for the wishes and sympathies of the people. Lord Seymour, able as he is in his way, is only a large contributor, not an originator. However, when the Palace shall have passed away, we trust that among the statues to be raised to commemorate its once whereabout, there will be some effigy to eternise the condescension and urbanity radiant in the head minister of woods and forests for 1851. May we propose a statue of—The Snarling Faun?

"However, taking it as foolishly and wickedly determined by authority—and no less stupidly and criminally granted and accepted by the country—that the wondrous fabric shall be broken up, having served its turn, like a child's money-box—how about the reward for the inventor of the new marvel? Great was the perplexity of the royal commission, blinded and smothered by visions of bricks and mortar—no more to be got together by the appointed time than the final bricks of Babel—when Joseph Paxton shot like a sunbeam upon the darkened council. An outrolling of a sheet of paper—a few master words—and Joseph Paxton became the deliverer of his prince and his prince's magi from difficulties that threatened to be inextricable—making for himself a world-wide renown, and leaving his name, 'like a wild-flower to his land.'

"Well, Joseph Paxton, at this writing, has been offered knighthood. What beside? Knighthood may or may not be a valuable nominal property: the word—the sound—takes its worth from the estimation of its bearer. Some men may make no more account of such title than of the jingling of pebbles in a tin-pot: others may consider it still to vibrate with ravishing music. But knighthood—mere knighthood! Have we not accidental knights—knights of good luck? Royalty goes into the city; and, lo! by virtue of that happy incident, two aldermen blow into knights. 'Wings at our shoulders seem to play!' On a sudden, spurs jingle at our civic heels, delighting our civic ears. Majesty makes a progress, in pelting shower, visiting Liverpool, and—for the time—sunny Manchester. And a bran fire-new knight presses the Liverpool bolster—a knight, of newest print, is stamped upon the cotton city. And it may be well, with our institutions, that this should be. Where the queen of beauty set her foot, flowers sprang at the touch; where Queen Victoria travels, let honours blossom. But these are honours of ceremony

—*Court Circular* glories—hardly of marked account, when vouchsafed upon men whose official life is not an accident; but whose position in the eye of mankind has been won by the inspiration and the labour of their souls. Surely, the case of Joseph Paxton is a case of 'Genius *versus* Mayors and Aldermen.' All dues paid, the Exhibition commission are encumbered with a quarter of a million of money. How much of this is owing to the felicitous genius, inspired at the happiest moment, of Joseph Paxton? Beautiful as were the contents of the glass, the glass itself was the prime glory; bearing the same relation to the things it covered, as does the shell

> "'————That lustre has imbibed
> In the sun's palace-porch, where when unyoked
> His chariot-wheel stands midway in the wave,'

to the fish within it. Of the millions of visitors to the Exhibition, how many came to the sight, brought thither by what they had heard and read of the wonderful Crystal Palace? That Palace, dimly shown in pictures—darkly outlined in printer's ink? Displace that beautiful fabric from the mind, and in its stead place the brick-and-mortar mountain that was to have been—granting it could have been piled by the 1st of May—and how many tens of thousands may be deducted from the millions of pilgrims who for the past five months have thronged our streets wending to Hyde-park; there, at one glance, to acknowledge a wonder of beauty that seemed to realise the fiction of fairy-land: a structure raised rather by the genii of Sindbad, than the materialised thought of human genius?

"Why, the chancellor of the exchequer is, in his pride of office, a smiling debtor to Joseph Paxton. Run through the items of the increasing revenue—at last made up—and the fiscal influence of the Crystal Palace brightens in almost every numeral. All folks with commodities to sell—or sights to show—whatever was the lull for the month of May—have reaped a tenfold harvest. There can be no sulky denial of this truth; the exchequer possesses proof of it—playhouse managers, in thankful closing speeches, confess it. But leaving all this profit apart, come we to the hard, glittering fact of a quarter of a million made beneath the roof of the Crystal Palace. What, then, for the architect? Mere knighthood? Court gingerbread, with *no* gilding? This will never do. Some small per-centage from that quarter of a million is as much the due of Joseph Paxton as was his day's wage to any Joseph the glazier who worked at the fabric. All England must grant this truth; and to the will of England to insist upon this application, we hopefully leave it.

"Finally, shall the Crystal Palace stand? This is a question to be answered, once and for all, by the people. A certain knot of the aristocracy, strong in their faith of official sympathy towards all that is exclusive, all that is contemptuous of the masses, already rejoice in the certainty of the demolition of the five months' wonder of the world. If the people do not speak with one loud, unstammering voice, Lord Seymour and his merry men will rush to the destruction; jolly, and full-blooded as the Goths rushed into Rome. And they will do Goths' work, to the disgrace of England, and the scorn and the amazement of the nations; if the voice of the country do not with one acclaim cry,—'Hold!'"

One more specimen from the same illustrious source, and we conclude our present chapter:—

THE DREAM.

> "THE time is close on midnight; above the roof of glass
> With a tremulous touch of silver the Autumn Moon doth pass.
> Now with paly fire uplighting a stretch of crystal wall.
> And anon her level glories on the Transept letting fall:
> But with the night she waneth, and her lamp is getting low
> And her fair head she hath hooded, forth from the sky to go;

But timidly, and tenderly, she first hath raised her veil,
To press a fond and farewell kiss on the Statue faces pale,
That in the Crystal Palace look down so chaste and chill,
Now the bells have ceased their booming and the groaning gongs are still,
And for buzz of myriad voices, and tramp of myriad feet,
There reigns so deep a silence you may hear your own heart beat.

"'Twas in this awful silence I stood within the place,
And thought of all this toiling and triumph of my race;
Of the weary stretch of ocean, the weary waste of shore,
That for this wondrous gathering must have been travelled o'er;
What toiling hands and thinking heads; what wealth, and want, and woe;
What hopes and fears, and joys and griefs, have joined to make the show;
How, under contribution, my country, strong of will,
Hath laid both forge and workshop, quarry, and mine, and mill;
How into Art's high studio she hath come with bold demand,
And all she found there worthiest, hath swept from every land;
Through the wild field of Nature hath sent labourers everywhere,
To garner up the harvest of water, earth, and air;
How, not recking creed or colour, her summons she sent forth
From African Saharas, to the snow-fields of the North;
And how, with hand all weaponless, and with a naked breast,
She folded in her great embrace the whole World for a guest—
And my heart swell'd high with thankful pride that I was England's son,
When came the sad and sudden thought—what's done must be undone!
That the day now on its closing the last day was to be,
That those flood-gates would open to let in their human sea;
That with to-morrow's sunrise the mighty trophy falls,
Reared by the Industry of Earth within these crystal walls.
Sad with this thought, I measured the nave with heavy pace,
When the great pulse of midnight throbb'd solemn through the place,
And the beat of the last stroke was still booming in my ear,
When all was life and motion, of a sudden, far and near.

"There was rustling of draperies, and slamming of doors,
Tossing of naperies, and creaking of floors,
There were metals a-ringing, pianos a-singing,
And harps of themselves obligatos a-stringing,
And furniture tumbling, and organ-pipes rumbling,
And awkward machines o'er each other a-stumbling,
And glasses a-crashing, and porcelain a-smashing,
And bronze candelabra through mirrors a-dashing,
And carpets, and floor-cloths, a-rolling themselves up,
And dresses a-folding their breadths on their shelves up—
In short, such a shindy, and rumpus, and riot
Burst out all at once on the night and the quiet,
That, my bacon to save, I fled down the nave,
When I saw—all at once—pray don't fancy I rave,—
The Statues in motion.—Have you e'er seen a Statue,
In the moonlight, at midnight—a-coming right at you?
Down from her horse swung the Amazon bold,
The Lioness dropped, much relieved, from her hold;
And the Horse gave a shake, as if thankful to break
From the *pose* he'd been forced for a six months to take.
Then tripped up the nave Hiram Power's Greek Slave,
In a Bloomer costume, most provokingly grave;
And Monti's sweet Vestal came swathed in her veil,
Peeping out from its wrappings, so pensive and pale,
Like a belle from the crush-room or ball, covered warm—
And, oh; how I longed just to offer my arm!
Mother Eve from the wall whipped a large Indian shawl,
And folded herself up the closest of all.

And here, with a clank, fit to stave in each plank,
Came, with Hagen and Gunther, the Niebelung rank.
And sans-culottes Cupids, a plump little throng,
From the Milanese Room, trundled, scampering along,
Not heeding poor Venus, who begg'd and beseech'd
They'd come back, like dear good little boys, to be breech'd.
Down came 'Eldon' and 'Stowell,' both stiff with the gout,
And I heard 'Eldon' whisper, while looking about,
With a shrug, 'Humph! No good will come of it, I doubt!'
At last, lest I might be by accident crush'd
By the Statues that hitherward, thitherward, rush'd,
I made myself small, and shrank into a nook,
And plucked up a heart on the chaos to look:
When all was suddenly still as before—
The movement in each compartment was o'er,
And a shadowy form stood at every door!
And something within reveal'd to me
'Twas the Spirit of each land's Industry,
Which had gather'd itself from the objects there,
And now stood reveal'd to my wondering stare.

"France I knew, by the red cap she wore,
And the tatter'd and trailing tricolor:
Austria, by her scowl of pride
On sad, sweet Italy, crouch'd by her side:
Russia, by crown barbaric of mould,—
All malachite and Ural gold:
Germany, by her flag outspread,
With its motley of yellow, and black, and red;
Which Prussia slyly strove to hold back,
Protruding before it her white and black:
Switzerland stood like a mountain queen,
Sturdy of limb, and free of mien:
By broad-based Holland, half fish, half maid,
With rudder, and oar, and dyking-spade;
While Denmark and Sweden were Nornas fair,
With ice-blue eyes and amber hair;
America full well I knew,
By her stars, and stripes, and her Eagle, too,
But her hand held a scourge, and her back show'd scars,
And somehow the stripes seem'd to dim the stars;
Persia, on her cushions lying,
Her almond eyes with kohl was dyeing:
And Turkey, a slipper'd and shrouded dame,
Flash'd from her yashmac a glance of flame;
While India show'd, with a lazy grace,
From shawls and muslins, a dusky face,
Large eyes half of languor, and half of light,
And a brow that blazed with the Koh-i-Noor's light.

"But in stature far above the rest, I marked one spirit tower,
The spirit of my own England—a spirit of peace and power;
Her eyes were deep and clear of look, and placid was her cheek;
And in her bearing that high calm to which all else is weak;
And as I bow'd before her, her chaste lips oped to speak:—
'Son, but now I heard a murmur in that shallow heart of thine,
That this gathering of wonders must henceforth no more be mine;
And a hard thing to thy folly it appear'd to scatter forth
All these garner'd fruits of labour, East and West, and South and North.
Know, vain heart, it is not only what they brought unto my shore
That my guests will take back with them—poorer were they than before;

No, a store of mighty import will with each and all return,
Till the world shall by the scattering—more than by the gathering—earn.
As the seeds of costly spice-trees by the Indian birds are spread,
So, by all my guests returning, precious seeds will wide be shed;
Seeds of peace, good-will to nations—seeds of useful arts untried,
With whose growths the world hereafter will be glad from tide to tide.'

"The deep voice ceased: and, when I raised my head,
Grey morn sat in the East, and I was snug a-bed!"

CHAPTER XVI.

CLOSING OF THE GREAT EXHIBITION.

PUBLIC REGRET—NUMEROUS VISITORS—GREAT EXCITEMENT—VOCAL ATTEMPTS—STATISTICS—PROGNOSTICS—A LAST LOOK.

"Last scene of all——"

We have thus far endeavoured, in the limited space afforded us in the pages of this work, to give an account of some portion of what was most worthy of record, in the splendid though brief existence of the great wonder of the age, that so lately reared its stately form among the venerable trees and delicious shades of London's most frequented and celebrated park. We have conducted our not unwilling readers along the various mazes of the fairy edifice, and pointed out to them its vast display of tributary wealth, collected from every known region of the globe; we have commented upon the rare products of science and of art that on every side were profusely offered to their view, and, aided by the magic powers of the daguerreotype, and the skill of an accomplished engraver, have even presented a majority of the most esteemed of them, as well as a large number of comprehensive views of the building itself, with all its moving multitudes and variety of objects, in mimic reality before the eye and approving judgment of the connoisseur. We have also indulged in many a pleasing anticipation as to the future benefit to be reaped by mankind from so friendly an emulation, so pacific a contest, among the various nations of the earth, that in times past were accustomed to hold themselves entirely aloof from each other, or only to meet in hostile array upon the tented field.

Our pleasing labours are now nearly at an end: it remains, however, that, as we have described at some length the ceremonies that took place on the day of opening, we should give an account of those that were observed on that of its closing, which we shall accordingly forthwith proceed to do, in the eloquent language of the *Times*, upon that memorable occasion:—

"On Saturday, the 11th of October, the Great Exhibition closed its wonderful career, and the public took their last farewell of its splendours. After being open for five months and eleven days, and concentrating in that time a larger amount of admiration than has probably ever been given, within the same period, to the works of man, the pageant terminates, the doors of the Crystal Palace no longer yield to the "open sesame" of money, and in a few days hence thousands of hands will be busily engaged in removing all those triumphs of human skill, and those evidences of natural wealth which the world was assembled to behold. It was natural that such an event should be

regarded by all who witnessed it with no ordinary degree of emotion. Feelings of gratified curiosity, of national pride, and of enthusiasm at the public homage paid to industrial pursuits, were tempered with regret that a spectacle so grand and unique should ever have a termination. The ephemeral existence assigned to the Exhibition has all along been fully recognised; yet it was impossible that so marvellous an undertaking could run its brief career without gathering around it many attachments, sympathies, and associations, which at the last it proved difficult to sever. Each person who had visited the building had found therein some objects that, by appealing to his imagination or his tastes, had gradually grown into favourites. With a large proportion it was the edifice itself which took the firmest hold upon their hearts. Its vastness, its simplicity, and regularity of structural details, and a certain atmosphere of mysterious grandeur which pervades it, are features which harmonise so perfectly with our character as a people, that they must have left a strong impression. If the whole country does not now protest against the wanton and aimless destruction of the Crystal Palace, we shall be very much surprised. It is only when we are about to lose them, that we begin to find the value of objects which have insensibly become endeared to us. As with the building, so it was also with many of the works of art, the treasures of wealth, and the examples of ingenuity which it contained. The 'Amazon,' Van der Ven's 'Eve,' Strazza's 'Ishmael,' the two French bronzes, and many other contributions of the highest artistic merit, were, for the last time, to be gazed at by the admiring multitude. All who had wondered over the *chef-d'œuvres* of Sevres and the Gobelins, who, in Tunis, had spent pleasant hours in examining everything, from the richly-brocaded dresses to the tent hung with wild beasts' skins; or who in India had feasted their eyes on the splendid evidences of an ancient civilisation—all had to take a final farewell of what had interested and moved them so strongly.

"The mechanical wonders of the place were about to be withdrawn from public view. The card-making machine, the circular wool-comb, Appold's pump, and Whitworth's tools, were to be seen no longer. The gratuitous distribution of envelopes and soda-water was to cease, and the alarm bedsteads were to do duty before admiring groups of chambermaids and cooks no longer. Even the time of that king of diamonds, the Koh-i-Noor, was up; and, after having attracted more curiosity and inflicted more disappointment than anything of its size ever did since the world was created, the period had arrived when it must cease to shine its best before the public. Under such circumstances, and with the mingled feelings which they could not help suggesting, the crowds of half-crown visitors bent their way to the Crystal Palace on Saturday. The weather was splendid, and the sun looked down warmly upon the only great building in the world, which did not inhospitably exclude his rays. At nine o'clock visitors began to arrive, and they continued to pour in steadily almost until the closing-bells had commenced to ring. All who came remained to the last, and, although the numbers present were not so great as some had anticipated, they rose higher than on any previous half-crown day, and were amply sufficient to make the death scene of the Exhibition worthy of its unprecedented popularity. There were 53,061 visitors altogether, and, as might have been expected, they busied themselves during the entire day in examining once more all the objects which on former occasions had chiefly attracted their interest. Some few were strangers taking at one view their first and last look of a spectacle which in grandeur they may not hope soon to see equalled. There was also a slight sprinkling of the humbler orders present, and among them a band of hop-pickers, with wreaths of the plant around their hats. In the main, however, the assemblage belonged to the middle and wealthier classes, and consisted of *habitués* of the Exhibition, or, at least, of people who had been there several times before. Faces that had not been seen in the interior since the first month after the opening were recognised

among the crowd, and it was evident that every rank and grade of society was fairly represented upon an occasion interesting alike to all. An eager desire was manifested, especially in the French department, to purchase mementos of the great display, and, in consequence, everything but an open sale was in progress. As the day wore on, a remarkable concentration of people in the nave began to be discernible. The side avenues and courts were deserted, and from end to end of the building nothing was to be seen but a great sea of human beings filling up the centre, and agitated by a thousand different currents of curiosity, which kept the mass in motion without progress. Time passed, and the circulation in the transept became rather impeded. The people seemed to be taking up their position there, and the galleries, as far as the eye could reach, were occupied by spectators, who, as they gazed on the vast assemblage beneath, evidently appeared to expect that some public demonstration was about to be made. The organs, which had been played constantly during the early part of the day, were now silent; and even that wonderful man Herr Sommer, with his still more wonderful instrument, sent forth no longer those astonishing volumes of sound which have rendered him, *par excellence*, the trumpeter of the Exhibition. Nothing was to be heard but that strange and mysterious hum of voices which, rising from all large assemblages, is imposing, but which in the Crystal Palace, swelling upwards from more than 50,000 people, leaves an impression upon the mind not soon to be forgotten. It was drawing near five o'clock, when from the top of Keith and Co.'s Spitalfields silk trophy, the whole nave, east and west, the area of the transept, and the galleries might be seen packed with a dense mass of black hats, through which at intervals a struggling female bonnet emerged here and there into light. The vast multitude had now become stationary, and were evidently awaiting, in silent but intense excitement, the last act of a great event, immortal in the annals of the nineteenth century. It was a most solemn and affecting scene, such as has rarely been witnessed, and for which an opportunity cannot soon again arise. Words cannot do it justice, and fail utterly to convey the mystery and the grandeur thus embodied to the eye. Let the reader fancy what it must have been to comprehend within one glance 50,000 people assembled under one roof, in a fairy palace, with walls of iron and glass, the strongest and the most fragile materials happily and splendidly combined. Let him, if he can, picture to himself that assemblage in the centre of that edifice filled with specimens of human industry and natural wealth, from every civilised community and the remotest corners of the globe. Let him tax his imagination to the uttermost, and still beyond the material magnificence of the spectacle presented to him—let him remember that the stream of life on which he looks down contains in it the intellect and the heart of the greatest metropolis and the most powerful empire in the world—that strong feelings, such as rarely find utterance in a form so sublime, are about to find expression from that multitude, and that in heathen times, even when liberty was still a new power upon the earth, the voice of the people was held to be the voice of God. Not only the days, but the minutes of the Great Exhibition were numbered, and the first sign of its dissolution was given by Osler's crystal fountain. Just before five o'clock struck the feathery jet of water from its summit suddenly ceased, and the silence of the vast assemblage became deeepr and more intense. The moment at last came. Mr. Belshaw appeared at the west corner of the transept-gallery, on the south side, bearing a large red flag in his hand. This he displayed as the clock struck, and instantly all the organs in the building were hurling into the air the well-known notes of the national anthem. At the same moment the assembled multitudes uncovered; and those who witnessed this act of loyalty, from an advantageous position, will long remember the effect which it produced upon their minds. Where just before, nothing was visible but a mass of black hats stretching away until lost in the distance, immediately there appeared a great sea

of up-turned animated faces, and to the solemn silence of expectancy succeeded a volume of sound in which the voices of the people were heartily joined. The Crystal Palace is not adapted for organ music, and they cannot, from the size of the building, be played in concert. The consequence was, that there being no proper organisation in the matter, the singing of 'God Save the Queen' was a very discordant demonstration of loyalty. Herr Sommer did everything in his power and in that of his instrument to keep the people in tune, but he was only partially successful. Some professional singers also gave their aid upon the occasion, and inspired the assemblage with courage to follow. On the whole, however, foreigners would have managed this matter better; and it does seem a pity that proper steps were not taken to make the performance of the national anthem as effective as it might have been. About the feeling which accompanied it there could be no mistake, for as soon as it had closed, there arose such cheers as Englishmen alone know how to give. These were continued for several minutes, and when the last of them died away, there passed over the entire building, and with an effect truly sublime, a tremendous rolling sound like that of thunder, caused by thousands of feet stamping their loyalty upon the boarded floors. Under this demonstration every part of the edifice trembled, and, as it swept from west to east, many an eye was raised with anxiety to the girders and pillars, which in long perspective were stretched out before them. And now the time had arrived for the death-peal of the Exhibition to be rung out. Some one displayed from the gallery of the transept an inscription from the well-known passage in Shakspere:—

> "'Our revels now are ended: these our actors,
> As I foretold you, were all spirits, and
> Are melted into air, into thin air;
> And, like the baseless fabric of this vision,
> The cloud-capped towers, the gorgeous palaces,
> The solemn temples, the great globe itself,—
> Yea, all which it inherit, shall dissolve,
> And, like this unsubstantial pageant faded,
> Leave not a rack behind.'

"A minute or two was allowed to elapse before the fatal signal was given, and during this brief interval the assemblage remained silent and motionless. At last it came, and a perfect storm of bell-peals broke over the building. The executive seemed to have collected all their strength for a last effort in this department of their duties, and we do hope that to the other statistics of the great undertaking now closed may at once be added the number of tympanums broken on the final day. Ireland, with her characteristic love of making as much noise as possible with the tongue, has sent the most powerful bells to the exhibition; but these resources, added to the bells of all nations, were deemed insufficient, and China had to come to the rescue with her gongs, and India to strike up some fine savage notes from her tom-toms, before the signs of an intention to depart were unmistakeably manifested. The concourse of people for a long time remained massed together, as if no power could separate or fuse them; but at last small currents and ripples of human beings might be seen setting towards the exit-doors, and these gradually increased in volume and rapidity as the shades of evening fell. One by one the gas lamps were lighted, and the building, divided between the empire of day and night, assumed an aspect curiously in harmony with its defunct character. The crowds flowed out faster every minute, and first the western, and then the eastern portions of the nave, began to show vacant spaces. In the meantime, the ringing of the bells was occasionally suspended, and in the intervals hearty cheers were given for Prince Albert, for the Prince of Wales, for Mr. Paxton, for Mr. Fox, for the exhibitors, and upon various other grounds. An attempt, too, was made by some vocalists to get up a musical

performance, but their efforts were instantly drowned by the revived energies of the ringers. The galleries and the eastern and western naves had now been completely cleared, but a dense body still clung round the crystal fountain, many filling bottles with water from it as a memento, and others struggling in vain to approach it for that purpose. The police and the sappers appeared on the scene, first in small knots, and then, when they had moved the people on a little, in extended line. By gently pressing on them they at last induced them to go, but it was dark, and half-past six o'clock, before the building was completely cleared, and the bells finally ceased tolling. The executive committee, and the chief members of their staff, met in the transept when it was all over, and many and hearty were the congratulations which they exchanged on the happy termination of their brilliant labours. It is rarely, indeed, that a body of men have assembled at the close of any undertaking, with more legitimate grounds for feeling pleasure and satisfaction. The Great Exhibition has been mainly the work of their hands, and its triumphant success is naturally regarded by them as their highest reward. Even the sappers participated in the gratification which the event of Saturday inspired, and before the building was left to silence and solitude, they made its dim and shadowy interior ring with three hearty cheers for the Queen.

"In looking back over the career of the vast enterprise which has thus auspiciously been terminated, the consideration which first and most strongly impresses itself on the mind, is the unprecedented popularity which it has attracted. Of this we quote some striking facts as illustrations. In the month of May, 734,782 visits were paid to the building; in June, 1,133,116; in July, 1,314,176; in August, 1,023,435; in September, 1,155,240; and in the first eleven days of October, 841,107. These figures give a total of 6,201,856 as the sum of visits to the Exhibition. Every one will calculate according to his particular fancy the proportion between visits and visitors, but at least it is obvious that several millions of people have had their minds enlarged, and their respect for industrial pursuits increased, by a portion of their time, more or less considerable, being spent in the Crystal Palace. The greatest number of people ascertained to have been in the building at any one time was at two o'clock on Tuesday last, when 92,000 persons were present. On the same day the number of visitors reached its maximum, and was 109,915. Between eleven and twelve o'clock on Monday last, 28,853 persons entered the building in one hour. When it is remembered that these extraordinary figures, which can be thoroughly relied on for accuracy, illustrate popular movements that only a few years ago would have been pronounced on the highest authority most dangerous to the safety of the state, we have the more reason to wonder that they should have taken place not only without disorder, but also almost without crime. The total number of charges made at the police station at the Prince of Wales's gate relating to offences within the building is, we are informed, twenty-five, of which nine were for picking pockets, six for attempts to do so, and ten for petty larcenies at stalls. Such facts speak for themselves, and certainly constitute it as one of the proudest boasts connected with the Exhibition, that property worth millions of money should have been inspected during nearly half-a-year by millions of people belonging to every class and grade of society, with only a few trifling crimes, involving no article of any value. From this agreeable feature connected with the popularity of the Crystal Palace we pass to another still more so. Shortly after the opening, the executive committee had the question of admitting charitable institutions gratuitously pressed upon their notice, and they decided not to do so, upon grounds which perhaps at the time were thought hard and unfeeling. What was the result? An immense spring of private benevolence, which has not been confined to the metropolis or its neighbourhood, but has extended to every part of England, and the influence of which, passing from the very poor to the struggling inde-

pendence of the country, has induced masters to send their servants, manufacturers their hands, bankers and merchants their clerks, tradesmen their apprentices, railway companies their men, and last, most wanted and most common of all, induced the owners and occupiers of the soil to send up, by subscription among them, their agricultural labourers. From a return with which we have been favoured by Mr. W. Murray, we extract some remarkable facts with reference to the attendance of charity and other schools at the Exhibition. It appears that up to the 9th of July, when he took charge of that department, no record was kept of the schools that came, and Mr. Murray can only ascertain an authentic list of twenty-one, giving a total of 4,093 children. By the return, 466 schools have visited the building, and of these Christ's Hospital sent the largest number, amounting to 900. On the 14th of July there were fifteen schools present, and 1,300 children; on the 30th, thirteen, and on the 6th of August, nineteen. On the 21st, fifteen schools and 1,022 children; on the 18th of September, thirty-three schools and 2,729 children; on the 25th, eighteen schools and 1,374 children; on the 2nd of October, twenty-five schools and 1,427 children; on the 8th of October, twenty-three schools and 1,312 children. The return includes a list of twenty-three parties, chiefly agricultural labourers, and including 7,758 persons sent up from the country by private benevolence. Such results are exceedingly gratifying, and will throw an additional lustre round the memory of the Great Exhibition. Looking at the popularity of the undertaking in a monetary point of view, the facts are equally extraordinary. The largest amount taken at the doors on any of the five-shilling days was £5,078, on the 24th of May. The greatest half-crown day was Saturday last, when £4,845 13*s.* 6*d.* was received. The greatest shilling-day was Tuesday last, when the sum taken amounted to £5,283 3*s.* In May the highest receipts were on the 24th, when upwards of £5,000 was taken, the lowest being the pound days. In June the greatest was a shilling-day, when upwards of £3,000 was taken; the lowest being the first shilling-day. In July, the highest (a half-crown day) was the 18th, when nearly £4,000 was received; the lowest being the 19th, a five-shilling day. During the month of August the harvest operations told visibly on the receipts, the greatest being on the 5th (a shilling-day), when more than £3,000 was taken, and the lowest being on the 2nd and the 30th. During the month of September the average take was still smaller; but the 29th and 30th were great shilling-days, and brought in £3,000 each. These *data* satisfactorily establish not only the vast success of the Exhibition, in a pecuniary point of view, but the constant and untiring assiduity with which the country, according to its ability, has come to visit and be instructed by the great spectacle. It is curious to remark that, whether the admission fee was 5*s.*, 2*s.* 6*d.*, or 1*s.*, while the number of visitors fluctuated accordingly, the actual sums taken under circumstances of similar excitement were nearly equal. This, if it proves nothing else, seems to indicate that the royal commission adopted a judicious scale of charges. From the facts thus recorded, the popularity of the Exhibition is placed in a position beyond dispute or question. The people flocked to it with an enthusiasm unprecedented in the annals of public spectacles, and, besides contributing to its grandeur by their presence, they have thrown around its brief but brilliant career the halo of an extended benevolence and the charm of a singular immunity from crime.

"While they have thus rendered homage at the shrine of industry, it is satisfactory to think that no means have been neglected for preserving and rendering permanent the lessons of experience which the Exhibition teaches, the lights for future guidance which it discloses, the wants which it developes, and the theoretic truths which it illustrates. Of no public event that has ever happened do such complete records exist. From these, speculative minds will hereafter be able to abstract their full significance; but it is now,

while curiosity and interest are still awake on the whole subject, and while the closing stimulates these faculties in an unwonted degree, that the full importance is appreciated of giving a practical aim and direction to those vague impressions of wonder which the survey of so many objects leaves behind. Men, in this country at least, do not rest satisfied with sentimental results, and if the doctrines of universal brotherhood and of a new starting-point to industry were the only general conclusions that they had to fall back upon, we fear that they might come in a very short time to think lightly enough of the Great Exhibition. The two great issues raised by the event which has just terminated may be briefly stated thus:—In what direction as an industrial community should we henceforth travel, and by what means should we proceed? Should we, yielding to those tastes for the splendid, which the possession of great wealth promotes, dedicate our efforts to the costly and the beautiful in production,—or should our course be still guided by those unpretending and material influences which have already raised us to such a pitch of prosperity and power? Standing between the civilisation of the New World and that of the Old, should we raise our manufactures to the highest European and Oriental standards of taste, or should we still struggle chiefly to extend their boundaries and to command, by the element of price, the markets of the world? That is one issue, and is already receiving a solution by which we may hope in time to secure both the alternatives suggested, and to show that, practically, they may be united in the same industrial system. The reports of the juries, the association of such men as Mr. Redgrave, Mr. Cole, Mr. Owen Jones, and Mr. Pugin, for the selection of objects on which to found a pure school of design, the labours of Mr. Digby Wyatt and others in the same direction; and above all, the project of the Society of Arts for the establishment of elementary drawing-schools,—these and other influences, added to the impetus which the public mind has already received on the subject, must tend greatly to raise the character of our art manufactures. On the other hand, the mortifying but useful defeats which we have received from our children across the Atlantic, the wide publicity given to new materials, machines, and processes — the certainty of an improved patent law in the next session of parliament; and, above all, the opportunities which (notwithstanding an unfortunate decision of the royal commission) have been afforded by the display just terminated for observing how far price affects the prosperity of trade,—these and other considerations will keep our manufactures utilitarian in their character, and strengthen vastly the mechanical and inventive genius of the country. The second issue which the Exhibition raises, viz., how best we should proceed in the industrial career which lies before us, has hitherto been chiefly dealt with in the various schemes for the appropriation of the surplus. Some think that we must effect a radical change in our educational system—that we must substitute living science for dead literature, and distribute the honours and rewards of life in channels where they may fructify to the use of the commonwealth instead of being limited to the learned professions, the military and naval services, and the residents of our universities. To others this seems a slow and a doubtful process. They advocate therefore the principle of association as the best for securing industrial progress. They say, bring the leading men in manufactures, commerce, and science, into close and intimate communication with each other,—establish an intelligent supervision of every branch of production by those most interested and likely to be best informed,—have annual reports made in each department, and let the whole world be invited to assist in carrying forward the vast scheme of human labour which has hitherto been prosecuted at random and without any knowledge or appreciation of the system which pervaded it. The public must eventually decide this contest of opinions, and their verdict, whichever alternative it inclines to, or whether or not it embraces both, will not only determine one of the most important questions that

the Exhibition has raised, but prove fraught with the gravest consequences to the welfare of this country and of mankind at large."

In addition to this comprehensive description we shall insert a few observations which have been sent to us by the same intelligent writer who, on former occasions, has favoured us with tributes from her pen in the sweet and forceful sonnet, and whose prose we trust will be equally acceptable to our readers.

A LAST LOOK AT THE CRYSTAL PALACE.

Madame de Stael has remarked that the English word "Farewell!" is one of the most musical, the most expressive, and the most affecting, that is to be found in any language. She is right; it is indeed more than a word—it is a sentence in itself. It contains the whole essence of an affectionate parting, fraught with all the good wishes that affection must ever prompt. It says, "Adieu! Be happy. I shall not witness that happiness, but I also shall be happy in hearing of it."

If not so harmonious in sound, equally moving in sentiment is the simple phrase, "For the last time!" The last evening that friends spend together, the last cordial shake of the hand, the last look at parting, the last request of lips dear to us—how warm are the feelings they call forth at the moment! how tender the recollections they leave! Even of things inanimate it is the same. Who ever looked back upon a favourite tree, a beloved roof, a well-known turn in an oft-tracked road, or upon any other familiar object, endeared by long associations, for "the last time," without feeling as if a void was left in the heart, which at the moment it seems no new object can ever fill up! It is not often, however, that crowded places of public resort awaken any sentiment of this kind: the "Positively Last Night of Performance," may indeed attract a numerous audience to a theatre, or a spectacle, but the scene is generally quitted without any demonstration of regret, except the doubtful one of uproarious applause, at its close.

Such was not the case at the closing of the Crystal Palace. We may venture to affirm that never since the world began, had so singular, so interesting a spectacle been beheld as that of between twenty and thirty thousand members of civilised society all met together under one roof, all actuated by the same sentiment of regret, that they had met to look "for the last time" on the wonders of Nature, Science, and Art, by which the Crystal Palace had, for six months, attracted all ranks, all ages, all nations, within its ample boundaries; to gaze upon its lightsome architecture, to track its spacious aisles, to contemplate its treasures and its wonders, and to open their hearts to that true philanthropy which finds its own enjoyments multiplied, a hundred fold, in the thought that they are also the enjoyments of all around. Never, indeed, did human institution give rise to so wide a sphere of good feeling as was diffused throughout that gigantic repository of nature's gifts and human industry, from all quarters of the globe! It afforded a delightful earnest of the happy period which we are allowed to hope for, and which we may all accelerate by individual efforts, when mankind will regard each other as fellow-citizens of the world at large; when facility of intercourse will lead only to exchange of benefits; and when nations, even the most remote, brought into familiar converse together, will willingly acknowledge and imitate what is desirable in each other, and endeavour to remove or correct whatever may be deemed otherwise.

Never did the Crystal Palace look more beautiful, never were its beauties more appreciated, than on the day at the end of which it was to be closed to the public. The sun shone brightly on the vaulted roof, the sky displayed its purest blue, the trees within seemed to rejoice with the trees without; the fountains threw up their glittering waters, as if in playful rivalry with each other, and strains of music burst forth from organs, pianofortes, wind instruments, and musical glasses, wherever they could do so, without

interfering with each other's audience. The very statues seemed animated; the Amazon to take a still keener aim at the ferocious animal that clung with firmer gripe round her horse's neck; the Greek Slave to cast a still prouder look of conscious dignity on the admiring circle around her, and a new sweetness seemed to pervade her features, as though she would fain part friends with the many who had sympathised in her wrongs. The rich products of the loom, the graceful handicraft of the engravers on gold and silver, of the inlayers in mosaic and wood, the glittering ornaments in papier maché, and the chaster carvings in oak, ivory, and ebony; the painted porcelains, the cabinets, the *bijoux*, the magnificent glasses, in which the passers-by took "a last look" at themselves, the *utile* and the *dulce* all came in for a final examination. The ladies again stopped admiringly before the shawls, the velvets, the satins, the laces, the jewellery; and even the gentlemen lingered among the boots, the spurs, the "fancy woollens," and other matters of male coquetry. And now the Hallelujah swelled forth its noble strains from the great organ; and we are much mistaken if thousands of hearts did not swell, at that moment, with our own, in grateful acknowledgment of the goodness of an overruling and ever-watchful Providence, that had thus allowed this beautiful Exhibition to draw to its close, without any occurrence of accident or harm to damp the recollection of it. A minute after a white satin flag was hoisted, with the well-known lines from Shakspere, which we have already quoted; but no sooner were the words discerned, than it was indignantly torn down, lest it might seem to prophesy that disappearance of the edifice, to which the nation at large was, at that time, unable to reconcile itself.

And now every eye began to turn towards the clocks, and every countenance to betray a calculation of the seconds that remained. The first unmistakable hint that the moment for the final close was approaching, was given, very unceremoniously, by the ruthless hand of a *pompier*, who, with officious haste, applied a hammer to the nails that attached the notices on the doors, respecting sticks and umbrellas, the exits and the entrances; and speedily brought them down, with an ominous sound which seemed to remind the clocks that they, also, had better not lose time; and forthwith they began to strike the hour of departure. Yet there was a reprieve of a few minutes. Another flag was waved, and then was struck up the national anthem; hats flew off, and "God save our gracious Queen" burst at once from the thousands round, with more energy than harmony; as, unfortunately, the organs all thought proper to join, one after another, and seemed trying which could get along the fastest. However, the sentiment was the same: cheers reverberated through the vast edifice; handkerchiefs were waved; the great bell joined in

"The concord of sweet sounds"

with all its might, and soon overpowered them all. Its arguments were not to be resisted; and, in compassion to their own ears, the goodly company were compelled to depart, though not without casting many

"A longing, lingering look behind,"

and giving utterance to many an eulogium on all that they had seen—many a regret that it was to be seen no more. But the Crystal Palace has not yet done half its mission—we might, indeed, say not a thousandth part of it. All its greatest benefits are to come; and although dismantled and reduced into its component masses of iron and glass, we may truly exclaim—

"The spirit is not there!"

No; it has already gone forth throughout every quarter of the civilised globe; teaching "peace on earth, and good will amongst men," by proclaiming the guiltless triumphs

that wait upon industry; the high tone of urbanity and morality that may be imparted to entire communities, by the cultivation of pure taste; and the wisdom of nations cultivating the friendship of each other, and promoting their own interests by an exchange of benefits; instead of exhausting their blood and treasure, and demoralising themselves, by a system of warfare which, even in professed time of peace, still requires to be kept in readiness for the moment of hostility. The spirit of the Crystal Palace has also incorporated itself with history; and future ages will read with astonishment, the details of the difficulties attendant on the undertaking in its outset; the energy that overcame them; the entire success that crowned its completion; the surpassing ingenuity and beauty of the edifice; the wonderful supplies that enriched it from all nations; the order observed in its arrangements; the millions that came from far and near to behold its treasures; the admirable decorum of all classes of visitors, raising the national character to a height it had never yet been able publicly and incontrovertibly to display; the benevolence it called forth; the happy meetings of friends and relatives that it fostered; the religious solemnity with which it was opened and closed; the blessing of Providence that preserved it, and all and everything connected with it, from harm or loss!

The account of its contents will form a history in itself, of the whole range of art and science in the nineteenth century; and the effects of the public display of them, and the examination and comparison of the objects in each compartment, thus afforded, will be daily evident in the improvement in every art and manufacture that has here had its representative, and beheld its competitor. Equally conspicuous will be the effect of the Crystal Palace upon our architecture. Many an edifice now dark and gloomy, will bear testimony to the advantages that belong to the new adaptation of iron and glass—

"Light, the prime work of God,"

will be no longer denied to our noblest structures. It is already in contemplation to over-arch some of the spacious courts of the British Museum; and many a lofty hall, now only exhibiting "darkness visible," may thus be thrown open to the aspect of the heavens, and have the sunlight streaming on its sculptured walls. But we must pause, or we shall write a volume, instead of the mere passing sketch we had originally intended.

CHAPTER XVII.

CONCLUSION.

HINTS FOR THE FUTURE—TO BE OR NOT TO BE—VARIOUS PROPOSITIONS—THE CRYSTAL PALACE A GYMNASIUM—NATIONAL BATHS—A VAST READING-ROOM—A LUXURIOUS LOUNGE—A CASTLE OF INDOLENCE—A VAST PICTURE-GALLERY, ETC., ETC.—THE CRYSTAL PALACE REMOVED FROM HYDE-PARK—THE PALACE OF THE PEOPLE AT SYDENHAM—RAISING THE FIRST COLUMN—MR. LAING'S SPEECH—REPORT OF THE DIRECTORS, ETC., ETC.

Having in our preceding pages described the rise, progress, and completion of the building of the Crystal Palace, and both with the pencil and the pen endeavoured to illustrate its most attractive features and its vast variety of objects, and having, at length, witnessed and recorded its last, its closing scene, we have now to relate what took place after it was no longer the grand emporium of the world, resounding with "the busy hum of men;" but when, despoiled by degrees of all the various tributes of so many nations, it stood, for a brief period before its final fall, a silent and melan-

choly wreck of departed grandeur, reminding the passer-by of the eloquent lament of the Dardan prince—

"———— fuit Ilium, et ingens gloriæ
Teucrorum."

For many weeks previous to this event, the public mind had been variously agitated respecting the propriety of taking down the building of the Great Exhibition. The general voice was in favour of its remaining a permanent fixture in the same pleasant spot it had so brilliantly adorned; the feeling was painful that so original and so beautiful a structure, with its long-extended and fairy-like aisles, should altogether vanish from men's sight,—its lofty and innumerable columns be thrown down,—its closely woven intricacies of girders be destroyed,—its magnificent crystalline vault, beneath which the tall and rugged elms—the ancient denizens of the park—freely extended their gigantic limbs, in an unaccustomed atmosphere of Italian temperature, levelled with the dust. It could not be believed, that the *loci amæni* where science had accumulated her wonders, and art her treasures, where the "gorgeous East" had profusely thrown around her gold and her gems, and industry displayed her triumphs, should all be ruthlessly destroyed. It was asked, could not the building be kept up and used as a place for exercise, in all weathers, amid the varied charms of blooming flowers and shrubs, gushing fountains, and living sculpture? It might also, it was contended, be supplied with an abundant flow of water and numerous baths, which in their commodious utility might be made to rival the spas of Germany, and emulate the Thermæ of ancient Rome in their costly magnificence and grandeur. It was furthermore suggested that, in addition to these sources of luxury and convenience, the building should be furnished with libraries and reading-rooms, and rooms for retiring and reclining; couches of repose were also to be arranged about the building, and the means of conveyance from one part of it to another were to be provided for the infirm, the idle, or the luxurious, in the shape of hand-carriages and Bath chairs, so contrived as to glide on noiseless wheels along the spacious and interminable avenues; and that nothing might be wanting to minister to the comforts and enjoyments of such as would be desirous to pass the entire day in this "pleasing land of drowsy-head," the most ample and liberal scale of refreshment was proposed, which with a few more adjuncts that might have readily been obtained, would have rendered the Palace a true representation of that celebrated *Castle of Indolence,* which Thomson has so graphically described, and whose account we shall accordingly forthwith present to our readers, more particularly to such of them as may, in imagination, be tempted to stray within the fancied limits that—

"Opened into halls, where who can tell
What elegance and grandeur wide expand
The pride of Turkey and of Persia land?
Soft quilts on quilts, on carpets carpets spread,
And couches stretched around in seemly band
And endless pillows rise to prop the head;
So that each spacious room was one full-swelling bed.

"And everywhere huge covered tables stood,
With wines high flavoured and rich viands crowned;
Whatever sprightly juice or tasteful food
On the green bosom of this earth are found,
And all old ocean genders in his round:
Some hand unseen these silently displayed
E'en undemanded by a sign or sound;
You need but wish, and, instantly obeyed,
Fair-ranged the dishes rose, and thick the glasses played.

"The rooms with costly tapestry were hung,
Where was enwoven many a gentle tale;
Such as of old the rural poets sung,
Or of Arcadian or Sicilian vale."—*Castle of Indolence.*

This dream, however, was not destined to be realised; the Sybarites of fashion remained ungratified; and other schemes were put forward, which also in their turn were laid aside. A lover of the graphic art proposed that the whole building should be converted into one vast and permanent picture-gallery, wherein might be displayed the treasures of ancient, and the glories of modern art. We can imagine what piles of the former would have found their way to the gates of the edifice, what excitement would have arisen among *the dealers*, what stores of neglected rubbish would have been overhauled in their dusty receptacles, to be dignified with high sounding titles, forwarded to obtain admittance; while, on the other hand, every tyro in art would have aspired for *situation*, and countless would have been the *acres* of canvas that would have travelled into the park, fraught with the most ambitious anticipations.

Another scheme was to convert the building into a winter garden, and also to arrange in it a residence for invalids; while in another quarter, it was proposed to establish within its crystal walls an occasional exhibition of manufactures, or an immense public reading-room, with a library for all nations; another speculation was to lay out the whole area in a profusion of gay *parterres*. In short, the most extravagant plans were suggested; the wildest and most impracticable measures proposed; none of which, however, met with sufficient favour with the public, and consequently they were quietly abandoned. In the meanwhile, it was argued, that although there was a deed of covenant between the royal commissioners and the treasury, its conditions had reference to a brick building in Hyde-park, which it was originally the intention of the commissioners to erect; and not to the beautiful structure that had subsequently been erected, and which had gained the admiration and approval of all parties. So strong, indeed, was the opinion throughout the country against its removal, that committees were formed, public meetings held, and deputations sent to the members of the government to petition against the measure; and finally, the question was brought before the House of Commons. Lord John Manners, however, the then "Shylock," as he was termed, of the Woods and Forests, insisted on a strict compliance with his "bond." His opinion was supported, and the building was ordered to be removed according to the terms of the covenant. "By this decision," as a contemporary writer has observed, "the friends and promoters of the Exhibition, who had witnessed with satisfaction the successful termination of the great enterprise, were spared the pain and disappointment of seeing the site converted into a mere lounging-place, a sanatorium for imbecile dowagers and hypochondriacal patients; or, under colour of advancing, by government assistance, the interests of art and science, being made the centre for that extended system of jobbery and baneful patronage which appears inseparable from undertakings fostered by the government of this country."

Although, by the final decree of the House of Commons, it would appear that all hopes for the Crystal Palace, with respect to the future, were at an end, still the principle evolved during the brief existence of the World's Great Mart of Industry, was one that could not be lost. From the ruins of the old, a new palace was destined to spring. Like the phœnix, from the very ashes of the past the new wonder arose, more attractive and more beautiful than its predecessor, and enriched with every endowment that the united efforts of science, of industry, and of art, could collect from every quarter of the globe, and arrange for the instruction and gratification of mankind. It is not, however, our present intention to enter minutely into any details of this magnificent undertaking; a

brief sketch must suffice: we may perhaps, some future day, be induced to enter more fully upon the subject, and present our readers, who have already so abundantly testified their approbation of our present work, with a complete history of the New Crystal Palace, and an elaborate description of its marvellous contents; availing ourselves, as heretofore, of the able co-operation of the draughtsman, the daguerreotype, and the burin.

But to continue. No sooner had the House of Commons decided upon the removal of the building, than a friend, in the extreme hour of need, came forward to rescue it from impending destruction. Mr. Francis Fuller, one of the earliest and most zealous promoters of the Great Exhibition, with a laudable desire to continue and extend the benefits which had resulted from it, proposed to purchase the materials of the building, and £75,000 were offered and accepted. A contract was then entered into by Messrs. Fox and Henderson, to take down the entire structure, and re-erect it at Sydenham, for the sum of £120,000. The next question was, where was this gigantic structure to be placed? It was observed, that the owner of the Crystal Palace was like the gentleman whose friend in India had sent him a live elephant; the park was a prohibited spot for it to graze in; the monster required space, to say nothing of expense; and the difficulty threatened to be insuperable, without a vast additional outlay. In this dilemma another friend appeared, in the owner of Penge-park, Sydenham, Mr. Schuster, whose name deserves to be gratefully recorded by the people of England, through whose munificence they have thus obtained the means of healthful recreation and intellectual advancement. We will quote the words of this public-spirited gentleman at the time of offering his domain:—"Although," says he, "I had made up my mind to spend the remainder of my days on the estate, I would rather give it up than you should be without a suitable site; and you shall have the park."

We will not now stop to enumerate the various financial difficulties and arrangements that had to be encountered and entered upon preparatory to the great undertaking. The directors that were chosen to superintend the enterprise resolved that the question of increased expense should not debar them from adopting the best means for insuring the recreation and instruction of the people. It was decided that the structure should be raised upon the summit of the hill that overlooks Sydenham—a commanding situation, with extensive and varied views, and situated in a noble and beautiful park, where art may be said to strive with nature in embellishing the favoured spot. On the 5th of August, 1852, the first column of the building was raised, in the presence of assembled thousands. A procession, headed by a large body of workmen, bearing a white banner, with the inscription, "Success to the Palace of the People," set out from the temporary buildings of the contractors to the spot upon which the column was to be raised. The directors of the company, the contractors, and the superintendents of the decorations followed, with a host of noble visitors, and a large body of the most eminent men in the different walks of science. The column was hauled up by a body of workmen, above the brass plate and socket upon which it was destined finally to rest, when Mr. Laing advanced, and deposited a glass bottle in the lower end of the column, containing the usual coins of the realm, and a paper with the following inscription:—

This Column,
The first support of the Crystal Palace,
A building of purely English architecture, destined for the
Recreation and instruction of the million,
Was erected on the 5th day of August, 1852,
In the 16th year of the reign of her Majesty Queen Victoria,
By Samuel Laing, Esq., M.P.,
Chairman of the Crystal Palace Company.

The original structure, of which this column formed a part,
Was built after the design of Sir Joseph Paxton,
By Messrs. Fox, Henderson, and Co., and stood
In Hyde-park, where it received the
Contributions of the Works of Industry of All Nations,
At the World's Exhibition,
In the year of our Lord, 1851.

To this was appended the following quotation, the aptness of which, we confess, we are utterly at a loss to find out. It may, perhaps, be intended to puzzle some future antiquarian as he pores over it, when the noble structure shall be in ruins :—

"———— I, your glass,
Will modestly discover to yourself,
That of yourself————
Which yet you know not of."

Mr. Laing, Sir C. Fox, Mr. Henderson, and Mr. Cochrane next advanced, and by means of screws and nuts, secured the column to the "base-piece;" after which a royal salute was fired, and the band of the Coldstream guards played the national anthem; while the people rent the air with their acclamations and joyous shouts for "the Queen and the Palace of the People." Mr. Laing then delivered the following admirable address to the assembled multitude, with which, as it displays in an eminent degree the graces of oratory, the research of scholarship, and the sound argument of philosophy, we shall proceed to gratify our readers at full length :—

"The duty has devolved upon me of fixing the first column of the new structure, which is intended to embody the glorious recollections of the Great Exhibition of 1851, as a fixed and abiding reality for purposes of national instruction and improvement. The importance of such an object might well have demanded the presence, on this occasion, of some one who occupies a far more conspicuous position in the public eye than the humble individual who now addresses you. I believe, however, that it is the very feeling which we all entertain of the deep importance of this great national undertaking, which has led us to the conclusion that, at this stage of the proceedings, the ceremony of inauguration would be most fitly entrusted to the official organ of the company. Recollecting as we all do that the parent idea which we are now labouring to carry out in new and untried developments, originated with the meritorious prince whose name is so deservedly and intimately associated with the glories of the Great Exhibition—recollecting, also, that the fairy structure which is about to rise like a phœnix from its ashes, was so often honoured by the presence of our gracious sovereign—I confess we feel very strongly that any patronage short of the very highest would be unworthy of the objects at which we aim, and of the enterprise which we have undertaken. On all occasions when the interests of art and science are concerned, and above all when the moral and intellectual improvement of the mass of the population are concerned, the country has never lacked—I will not say the patronage, but that which is worth all the patronage in the world—the enlightened action and affectionate solicitude of our sovereign lady the Queen and her illustrious consort. At the same time, every one must feel that in order to command such patronage, we must show that we deserve it; and that until we have fully emerged from the chrysolite state of a commercial company, and given actual pledges, not only of our wish, but of our power, to carry out the high and noble objects by which we profess to be animated, it would be premature and disrespectful to venture to solicit such patronage, as we are ambitious enough to say that we hope at some future, and not very distant, day to obtain. In the meantime it only remains that we, the plain men of the people, should do our work quietly, effectively, without parade

or ostentation; and truly when we consider the work which has this day been formally commenced, it is no light enterprise which lies before us. Former ages have raised palaces enough, and many of them of surpassing magnificence. We have all read of the hanging gardens of Babylon, the colossal palace temples of Egypt, and the gorgeous structures of Nineveh and Persepolis. Many of us have seen the scattered fragments of Nero's golden palace on the Palatine Hill, and the vast ruins which still speak so magnificently of the grandeur of imperial Rome. But what were all these palaces, and how were they constructed? They were raised by the spoils of captive nations, and the forced labour of myriads of slaves, to gratify the caprice or vanity of some solitary despot. To our own age has been reserved the privilege of raising a palace for the people. Yes, the structure of which the first column has just raised its head into the air, is emphatically and distinctly the possession of the British people, and it is the production of their own unaided and independent enterprise. On us, to whom circumstances have entrusted the direction of this great popular undertaking, devolves the duty of seeing that it is carried out in a manner worthy of the public spirit of the age in which we live, and of the magnitude of our high mission. I assure you we all feel very deeply the responsibility of our position; and although, for the reasons to which I have already adverted, we have judged it premature and unseemly to make any formal religious ceremonial on the present occasion, we feel not the less profoundly that in carrying out this undertaking, as we hope to do to a successful issue, we are but acting as the instruments of that beneficent and overruling Providence which is guiding our great British race along the paths of peaceful progress. I trust that the assurance that we are all deeply and intimately impressed with what I may almost venture to call the religious policy of our duties and responsibilities, will be accepted as a guarantee that to the best of our judgment and ability, this great undertaking shall be conducted in a proper spirit and with a view to noble and elevating objects. As regards the material portions of the enterprise, words are but feeble instruments in which to paint the triumphs of art and the beauties of nature. It is better to ask you to look around you and say for yourselves whether the site is worthy of the People's Palace and the People's Park. Figure to yourselves the surrounding area which is now defined by a circle of beauty, converted into a crystal dome, and raised aloft under the blue vault of heaven, and you will form some indistinct image of the new central transept as it exists in the genius of a Paxton, and as it will shortly exist as a tangible reality for the wonder and admiration of millions. But I will not detain you longer by attempting to describe that which no words can adequately represent, and I will conclude by the expression of another sentiment to which I am sure you will heartily respond. In looking so peculiarly and emphatically on the fact that this is to be the palace of the people, the time was when I should have risked calling forth some antagonistic feeling, as if the cause of the people were placed in invidious contradistinction to that of the crown and the aristocracy. Thank heaven! the time when such distinctions can be drawn in England has disappeared. It is the grand characteristic of the reign of our present gracious sovereign to have witnessed the most rapid progress in the material, moral, and intellectual improvement of the mass of the population; and, as a consequence, a corresponding increase in their social importance and political power, not only without any outbreak of democratic passions, but, on the contrary, with an equally marked increase in the attachment of those very classes to the institutions of their country and to the person of their sovereign. The feeling of loyalty which had dwindled into a faint *dilettante* speculation or vague historical reminiscence, has in our days been most happily and wonderfully revived, and exists now as a general glow, pervading all classes of society, and binding the highest and lowest in the land together by one common and ennobling tie of reasonable and intelligent, yet devoted and affectionate

veneration for the character and person of our beloved Queen and her illustrious consort and family. Towards the creation of this happy feeling, I believe no incident has contributed in a more marked degree than the Great Exhibition of 1851. None of us will ever forget to whose comprehensive and philosophic mind we are indebted for the original idea of that transcendant Exhibition ; and to whose courage, resolution, and business aptitude we owe the prosecution of that idea to a successful conclusion, amidst all manner of doubts and difficulties. Nor shall we hastily forget the affable and condescending manner in which our gracious Queen, surrounded by her family, mixed there day after day, in free and unreserved intercourse with her subjects, setting an example by which all, from high to low, might profit, of enlightened interest in worthy objects, and unaffected sympathy with the tastes and enjoyments of her people. With these recollections fresh in our minds, I must confess it has been an inspiriting idea with us that in perpetuating an enduring memorial of that great and glorious Exhibition, and in expanding the noble and philanthropic idea of Prince Albert into fresh developments, we should be at the same time rearing a monument, perhaps not altogether inappropriate or unworthy of the reign under which we have the happy privilege to live. I feel that you all respond to this sentiment ; and that, in calling on you now to join with me in celebrating the act of laying the foundation-stone of the People's Palace, I cannot suggest a better mode of expressing our common feeling, than by asking you to unite in one loud and hearty acclamation of 'God save the People's Queen !'"

Thus, amidst joyous anticipations, was the first column of the new palace raised ; after the completion of which ceremony, the visitors proceeded to share the hospitality of the contractors, Messrs. Fox, Henderson, and Co., in a sumptuous banquet, which was spread out for them beneath the ample shelter of a large marquee on the summit of the hill. After this auspicious day, the progress of the work, both with respect to the erection, building, and the laying out of the grounds (under the direction of Sir Joseph Paxton), proceeded with all possible celerity ; and it was indeed imagined that the New Crystal Palace would have been opened to the public in the month of May, 1853. But the unfavourable state of the weather considerably retarded the work ; and to add to the misfortunes of storms and wind, a disastrous catastrophe occurred, attended with the loss of fifteen lives, and the risk of destruction to a great portion of the building, in consequence of the falling of the scaffolding in the central transept, which occasioned a further delay of more than three months in the progress of the works.

In the meanwhile, to diversify their labours, amusements were not wanting, neither were the interests of science neglected. On the last day of the old year (1853), a curious banquet was given by Mr. Waterhouse Hawkins, in a portion of the grounds which he was preparing for the reception of a series of extinct animals. In the body of one of the restored antediluvian monsters the repast was spread, twenty-one guests were assembled around the festive board, at the head of which, within the skull of the huge animal, presided Professor Owen, who from that locality delivered an appropriate address on the value of the labours in the wide field of geology and palæontology of such men as Cuvier, Hunter, and Conybeare. The beast in which he was then speaking (the Iguanodon), had once roamed through the vast forests of Sussex, and had probably perished there through some great convulsion of nature. Many appropriate toasts, and much suitable hilarity beguiled the hours until near midnight, when the gratified guests departed to their several homes.

The Crystal Palace of 1851 was the astonishment and delight of the millions who visited it, and long will the recollection of its glories remain impressed upon their minds. But the new Palace of Glass—the Palace of the People—has, to an immeasurable extent, increased the attractions and advantages that belonged to its predecessor.

Besides its superior size and commodiousness, it also possesses, in the spacious park and grounds that surround it, every opportunity for horticultural and picturesque embellishment, for the gratification of those who, satiated with the splendours of the interior of the building, may wander forth among the fountains and the groves, the gardens and the mimic wildernesses that are spread around. In the number of its Courts, too, and in the treasures of art that it has accumulated from every quarter of the globe where civilisation has made any progress, it is, beyond all comparison, more comprehensive. The Nineveh, or Assyrian Court, will be visited with intense interest, unfolding as it does its wondrous record of remote ages, in colossal monuments, sculptured walls, gigantic idols, and statues of renowned and mighty monarchs, whose names are familiar to us in the page of Holy Writ: it has been erected from the designs, and under the immediate superintendence, of Mr. Fergusson, a gentleman well qualified for the task, and who has been assisted by the researches and discoveries of the most celebrated travellers. The colouring and ornamentation used by the ancient Assyrians has been very ably imitated by Mr. Collman, of Curzon-street. The colossal bulls, and the columns from Persepolis, are modelled by Mr. Harper from the originals and from accurate drawings. We cannot at present enter into any details of this most extraordinary revelation of remote antiquity. Its solemn and mysterious chambers, its sacred halls and colossal forms, appear to usher us into spiritual converse with the mighty dead. Sennacherib and other mighty princes of the land, rise before our imagination in the venerable precincts so often graced by their presence, and where their sculptured forms still exist, to bear testimony of their departed grandeur; while the very walls, in their illustrations, recall to our minds the accuracy of the description given by Ezekiel of the decorations of an Assyrian palace. Next to the Assyrian, the Egyptian Court claims especial notice. It has been arranged under the direction of Mr. Owen Jones and Mr. Joseph Bonomi, and comprises, on a reduced scale, select portions of the principal monuments of Egypt, from the time of the Pharaohs to the Roman period; and marvellous are the representations of temples, tombs, and public edifices, that are placed before the spectator. We have a portion of the magnificent Hall of Columns in the Temple of Carnac, at Thebes; the Temple of Aboo-Simbel, in Nubia, with its colossal figures; the Portico of Denderah; and a vast variety of sphinxes, obelisks, statues, and hieroglyphics, that equally awaken our wonder and our admiration.

The Grecian Courts are extremely interesting, and abound with the finest specimens of sculpture; among which the Laocoon and the Dying Gladiator of the Capitol, hold pre-eminent rank. On every side the eye rests on some stately or graceful form of classic celebrity; while a fine model of the Parthenon gives further evidence of the taste and splendour of ancient Greece. We now pass into the Roman Courts, which also present to us many exquisite productions of the chisel, and several representations of Roman baths decorated in the richest and most glowing hues, and with the most exuberant imagination. A large collection of busts, of the most celebrated of the Roman worthies, are also placed in these apartments. The gorgeous Court of the Alhambra next solicits attention, rich in decorative illustrations of the splendour of the ancient palace of the Moorish kings of Grenada. The Pompeian Court is also a new and attractive feature in the New Crystal Palace, realising to our imagination the house of a Roman citizen in the reign of Titus, the conqueror of Jerusalem, as it existed in the city of Pompeii, at the time when it was visited by that tremendous eruption from Vesuvius by which the elder Pliny lost his life. Many more are the novelties we might enumerate, but we must not now extend our remarks. Fitting time and opportunity may perhaps occur in which we may resume the subject, and expatiate thereupon. At present, however, we must content ourselves with a brief description of the Palace and grounds, and an account of the ceremony of its opening.

The Crystal Palace stands nearly north and south, on the summit of Penge-hill; its length being 1,608 feet; its greatest breadth at the central transept, 384; and at the smaller transepts, 336 feet. The general width of the body of the building, between the transepts, is 312 feet. The nave consists of a grand avenue, nearly double the width of the nave of St. Paul's Cathedral, and more than three times its length; it is seventy-two feet wide, and 1,608 feet long, and crosses the transepts at right angles. At a height of sixty-eight feet from the floor, there springs a semi-cylindrical vault, seventy-two feet in diameter, which stretches away from one end of the nave to the other. The central transept has a vaulted roof of 120 feet span, extending for a length of 384 feet. The span of this noble arch is about twenty feet larger than that of St. Peter's at Rome, and nearly forty feet greater than that of St. Paul's in London. The space covered by this colossal vault is considerably larger than the whole Minster at York. The walls of St. Paul's Cathedral are fourteen feet thick, those of the Crystal Palace eight inches; St. Paul's was thirty-five years in building,—the People's Palace has been constructed in little more than twice as many weeks. At a distance of 528 feet on each side of the central transept, the nave is intersected by the two smaller transepts, each of which are, however, of the same dimensions as that which formed the great feature of the late Exhibition building. They are seventy-two feet in diameter, and spring from the same height as the vaulted roof of the nave—that is, sixty-eight feet. At the point of intersection of the nave with the end transepts, the roof is flat, and forms a parallelogram of seventy-two feet square. On each side of the nave are aisles of twenty-four feet in width, formed by the columns which support a portion of the building. Beyond these first aisles, and parallel with them at a distance of forty-eight feet, are second aisles, forty-three feet in height; and again beyond these, and at the same distance, are third aisles of the same width and height. At alternate distances of seventy-two feet and twenty-four feet, columns project eight feet into the nave, which, continued up nearly to the roof, support an upper gallery, which runs completely around the building, and sustain also the arched girders which carry the semicircular roof of the nave. A gallery, twenty-four feet in width, runs entirely round the building on the sides nearest the exterior, and round four courts, 48 by 120 feet, which abut on the central transept. This lower gallery is reached by eight double staircases, four being placed at each portion of the building, divided by the central transept. From the first or lower gallery, access is obtained to the upper eight-feet gallery by eight spiral staircases, one being placed at each end of the three transepts, and one at each end of the building. The second tier of columns supports in the transepts only a platform, or landing-place, twenty-four feet in width, and seventy-two feet in length, with the exception of the larger one in the centre, the length of which is 120 feet, and from these platforms, at an elevation of forty-two feet from the ground, a continuation of the spiral staircase leads to the second or upper gallery, at a height of sixty-two feet. The passage along this gallery is through a series of ring or "bull's-eye" girders, seven feet in diameter, resting upon the columns which project into the nave, at alternate distances of twenty-four and seventy-two feet. The view from this gallery of the park and grounds, and of the surrounding country from this elevation, will amply repay the visitor for the trouble of ascending.

The ribs which support the semicircular roof of the nave and two end transepts are of wrought iron. At alternate distances of twenty-four and seventy-two feet are semi-circular lattice-work girders, eight feet deep, which rest upon, and spring from the upper surface of the "bull's-eye" girders just mentioned. These girders are connected and made rigid by other longitudinal girders of six feet in depth between the shorter spaces, and of three feet in depth between the longer intervals. The whole of the arch of the roof is divided into seven equal parts by these longitudinal girders. The visitor, while

he is struck with the imposing grandeur of this noble vaulted roof, will not fail to notice that it lacks that soft aërial perspective and atmospheric tint, which proved so prominent and marked a feature in the flat roof of the late Exhibition building in Hyde-park. The necessity for greater depth, and more frequent intersection of the girders, has rendered this change unavoidable, but the vastly improved character of the edifice, by the substitution of an arched for a flat roof, more than compensates for the absence of this feature of the former building. The central portion of the roof, which rises eight feet above the upper surface of the girders, is fitted on each side with louver plates for the purpose of ventilation. The girders which support the roof of the great transept are deeper and stronger than those of the smaller ones. The construction of this roof—one of the proudest monuments of engineering skill in the country—was the heaviest portion of the work connected with the erection of the Crystal Palace; and the melancholy accident of the falling of the scaffolding retarded its completion for more than three months.

The Palace, exclusive of the wings, is supported on the ground floor by 968 columns, secured in their position by a nearly equal number of cast and wrought iron girders. The roof of the building, except in the case of the nave and transepts, is in its general form flat, but is made up of a series of ridges and furrows, which form the peculiar feature of its construction. It is, in fact, a network of gutters, beautifully arranged for carrying off the water, and at the same time serving to support the roof. The rain-water which falls is conveyed away down hollow columns connected with pipes at their base. Of these gutters a total length of nearly thirty miles has been used in the entire building.

Under the ground-floor of the building, is what is termed the Paxton tunnel. In consequence of the sloping nature of the ground on which the building stands, having a fall of twenty-six feet towards the park front, it was necessary to run up brick piers to support the base plates on which the column rested; and a basement story looking out on to the terrace has been formed, where the machinery in motion is exhibited. The tunnel extends from end to end of the building, and it also contains the boilers and apparatus for heating the building; not less than fifty miles of large iron pipes being employed for this purpose. A tram-road traverses the whole length of the tunnel, upon which the fuel for the smoke-consuming furnaces is conveyed. The roof of the basement floor is formed of brick arches, resting on the flanges of cast-iron girders, supported at one end by a row of monotonous-looking iron columns; and upon the other, by a brick retaining-wall. The position occupied by exhibitors of machinery is the part immediately facing the grounds.

THE OPENING OF THE NEW CRYSTAL PALACE.

The opening ceremony was at length definitively fixed for the 10th of June, when her Majesty had graciously signified her intention to be present, and great preparations were accordingly made to give due effect to the important proceedings. A magnificent orchestra was supplied by the members of the Sacred Harmonic, and other musical societies, consisting of not less than 1,500 performers, under the direction of M. Costa, assisted by Lablache, Tagliafico, Leffler, and other celebrated *artistes*. In the centre of the building a dais was erected for her Majesty and the royal party, with vases full of the choicest flowers, of every varied hue and from many a distant clime, diffusing their fragrance around; while from every angle of the building were displayed the various banners of all nations, waving in harmonious and peaceful accord. Innumerable were the accommodations for the vast assembly that was expected; rows upon rows of crimson benches, chairs, and seats, were provided for the grand display of beauty and fashion, while the chosen of the aristocracy, members of the Houses of Lords and Commons, statesmen and foreign ministers, in their rich and glittering uniforms, occupied the galleries, the nave, and the transepts, where also figured the minor dignitaries—mayors (metropolitan and provincial) in their

scarlet robes; aldermen in purple and miniver, common-councilmen, less splendidly attired; the city officers in their somewhat fantastic guise; the gay sons of Mars in scarlet and gold; the naval heroes in corresponding uniforms of deepest azure. The ladies variegated the scene with their rich dresses, prepared from every colour in the rainbow; while here and there an Indian prince, glittering in gold and jewels, shone in the galaxy as a bright and particular star of the first magnitude.

Precisely at three o'clock, her Majesty, accompanied by Prince Albert, the Prince of Wales, Prince Alfred, the Princess Royal, the Princess Alice, the King of Portugal, and the Duke of Oporto, with a numerous and brilliant *suite*, arrived at the Crystal Palace, and proceeded to occupy the royal dais. The members of the government were arranged on one side, and the foreign ambassadors, in their rich costumes, on the other, together with the directors and officers of the Crystal Palace in court dress. Immediately after the royal party had taken their position upon the dais, the orchestra, with their voluminous voices, commenced singing the national anthem, of which the solo passages were brilliantly executed by Clara Novello, whose sweet and melodious accents penetrated to the most distant recesses of the vast edifice. After the performance of the anthem, Mr. Laing, M.P., the chairman of the Crystal Palace Company, ascended the dais, and presented an address setting forth the origin and objects of the undertaking, to which her Majesty returned the following reply:—

"I receive with much pleasure the loyal and dutiful address which you have presented to me upon the present occasion. It is a source of the highest gratification to myself and to the prince, my consort, to find that the Great Exhibition of 1851, which was so happily inaugurated under our auspices, suggested the idea of this magnificent undertaking, which has produced so noble a monument of the genius, science, and enterprise of my subjects. It is my earnest wish and hope that the bright anticipations which have been formed as to its future destiny, may, under the blessing of Divine Providence, be completely realised; and that this wonderful structure, and the treasures of art and knowledge which it contains, may long continue to elevate and instruct, as well as to delight and amuse, the minds of all classes of my people."

The authors of the various handbooks and guides to the Crystal Palace, next presented her Majesty with an elegantly bound copy of their works. Her Majesty then descending from the dais, a procession was formed, headed by the superintendents of the works, the contractors, the architects, the officers, and heads of departments. Then came her Majesty and the illustrious personages who accompanied her, followed by the Archbishop of Canterbury, the members of the government, and the foreign ambassadors and ministers. The procession passed round the whole of the nave, amid long arrays of loyal subjects, the fairer portion courtesying their homage, and the gentlemen shouting their loyalty, while her Majesty, with a grateful feeling that never flagged, and a dignity which seemed to know no fatigue, acknowledged the expressions of devoted attachment; and the prince, her consort, calmly but earnestly bowed his acknowledgment of the warm and cordial greeting. After this the royal dais was again occupied, her Majesty and the royal party were grouped as before, the ministers of state and the diplomatic body were arranged as before, and the imposing music and sacred expressions of the Hundredth Psalm peeled through the lofty edifice. Silence was then observed, while the Archbishop of Canterbury, in a short and impressive prayer, invoked the blessing of the Almighty on the undertaking. After which burst forth, in one tremendous crash, the mighty power of the entire orchestra; and the sublime chorus of the Hallelujah—the noblest of Handel's productions—reverberated throughout the vast extent of the unrivalled structure. Again all was hushed for a brief pause, and the Marquis of Breadalbane advancing to the front of the dais, exclaimed—

"I AM COMMANDED BY HER MAJESTY TO DECLARE THIS PALACE OPENED!"

This announcement was succeeded by a long, a loud, and most enthusiastic cheer from the assembled multitude, which echoed through the long-extended aisles, and floating upon the air, was borne to the parks, the terraces, and gardens without; and almost before the joyous sound could fade upon the ear, the clear voice of Clara Novello rose—

"Like a steam of rich distilled perfumes,"

and stole upon the sense, in the solos of the national anthem, to which ever and anon the full chorus swelled with its multitudinous sounds, mingled with the varied notes of the powerful band. Again and again the congratulating cheer saluted her Majesty as she descended the dais, accompanied by her brilliant and courtly train;—the ceremony was then concluded, the eventful day was over, and the rich pageant passed away. With this slight sketch we now take leave of the Palace, and invite our readers to wander through the grounds which surround it, and to admire the science and the skill which mark every arrangement. The *utile* and the *dulce* are indeed the prevailing characteristics of the variegated domain, wherein all the refinements of modern gardening, aided by the taste and judgment of Sir Joseph Paxton, have been employed to render the whole equally instructive and delightful.

A series of terraces, ornamented with balustrades and statues in the best style of Italy, unite the building with the adjacent gardens, to which they impart an air of grandeur and magnificence, unrivalled even in those courtly scenes so beautifully described in Boccacio, and delineated by Stothard. Chatsworth and Versailles can no longer boast of their pre-eminence in garden-architecture: the gardens of the New Crystal Palace bid fair to outvie the most celebrated of ancient or modern production. The Italian garden extends along the whole length of the building, with a width of between three and four hundred feet. It is bounded on the north and south by the two wings of the building; on the west by the main façade; and on the east by the park. As the ground slopes rapidly from the building, the terraces descend accordingly, with grand flights of steps, planned on a scale of surprising magnitude, and adorned with colossal sphinxes. Gravel-walks (one of them 100 feet in width) extend from some of these terraces and steps to others. Capacious stone basins, of elegant form, are met with on every side, from which graceful jets of water will be thrown to a great height. Grass-plots intervene between beds clothed with the richest productions of Flora. All this gorgeous scenery is visible from six or eight heights in the building; and beyond the garden, at a lower level, is the park, which is laid out in grassy hillocks and valleys, separated by gravel-walks, and exhibiting fine groups of trees and plants. But certainly the most surprising part of the park are the basins and lakes. One of these latter reservoirs is of immense extent, and so skilfully supplied with water, as to exhibit the phenomenon of a tidal flow at different hours of the day. On two islands on this lake are placed the antediluvian monsters fashioned by Mr. WaterhouseHawkins—extinct species which existed in our globe thousands of ages before the birth of man, which the eye of science had in imagination seen roaming over the pathless forests of our island, and whose forms our sagacious naturalists have so accurately determined, from the various mutilated portions which exist, as to enable the anatomist to reconstruct the entire frame of the animal, and clothe it with its appropriate integuments. Among these are the Mosasaurus, with its colossal lizard-like head, with wide gaping jaws and formidable teeth—an aquatic member of the great Saurian family. Monster lizards, the Dinosaurians, are also to be seen. The Iguanodon, too, or colossal land-lizard, some thirty or forty feet long, showed an intimate and beautiful connection and gradation

to the Pachydermata of the present day, of which the elephant is the type. The *Hylaosaurus* and the *Megalosaurus*, which latter Professor Owen calls the most "cantankerous" of all animals, and one of the most savage and destructive which, in geological epochs, roamed over the chaotic earth. But by far the most extraordinary specimen that is placed on this island, is the *Pterodactyle*, or "winged-fingered saurian," a strange mixture of fish, bird, and beast, and which, under the name of the "dragon," has been associated with the valorous feats of St. George, our patron saint. This extraordinary creature was a native of England; and as tradition is in all cases founded upon some degree of fact, it is by no means improbable that it was a combat with, and destruction of, the last of these savage beasts, that conferred such high renown upon its vanquisher. A number of other branches of the *Saurian* tribe might be enumerated; but we imagine our readers have had enough of these "ugly-headed monsters," and we will therefore quit the wild and dreary regions they inhabit, and betake ourselves once more to the realms of upper day, and revisit the fairer portions of the garden and the park.

Among the most pleasing creations of Sir Joseph Paxton is the Rosarium, or Mount of Roses. It is a circular colonnade, situated on an elevated mound, and is approached by six winding paths which meet in an inner circle forty-eight feet in diameter, within a colonnade formed of 120 columns. Around the circle are twelve arches, thirty-one feet in height and sixteen in width. One of the arches spans each of the walks leading into the promenade, and there is one arch between every two walks. The spaces between the twelve arches are filled up with smaller arches, the columns supporting which are eight feet apart. There is a delightful walk, sixteen feet in width, round the entire colonnade. The space between the walks which radiate towards the centre, covered with a delicious velvet of turf, will tempt the weary feet, and seats solicit the fatigued traveller to rest himself within the fairy-like enclosure; while, if a gentle shower should pay its unexpected tribute, the fair worshipper in Flora's bower will find shelter provided for her beneath the corrugated iron roofs of the circular arches, round the lattice-work of which roses climb and blow, and shed their delicious fragrance.

Let us now continue the geological track to the lower strata of the vast and dateless primary formations, which—so comprehensive is the scheme of development presented to us—are here offered to our inspection. The distinguishing feature of these regions is their gorgeous and luxuriant display of foliage and flowers. It appears that vegetable existence (the first principle of life) emerged from the lifeless granite forms, and arrayed the earth with its verdure and its herbage; and the huge pine and the entangled forest arose and found support amidst the devastation and ruins of the extinct mineral creations which had preceded them. It is to be noted that, among the remains of all the luxurious vegetation compressed in the coal formations, there does not exist a single trace of any known plant of the present day; neither has there been found the track of any reptile of that period. In short, no fossil remains testify the existence of animal life in these interminable forests, over whose frightful solitudes the most profound silence appears to have presided. The visitor is conducted by a pathway towards the right, to a bank upon which the *coal formation* is illustrated, on the importance of which to the world at large it is unnecessary to offer any remark.

The limestone beds are shown on each side of the small channel which flows into the large tidal lake. They are found in various degrees of thickness, attesting the lengthened duration and subsequent extinction of a creation, being principally composed of animal remains—testaceous and coralline insects, and animalcula, petrified into hardened rock. There is also a lead-mine represented. In the outer portion of the great wall of limestone are shown two small veins of lead, and immediately beneath them is a small opening or chamber, thickly studded with the stalactites peculiar to the lead-mines

of Derbyshire. Passing on a short distance from the coal formation, the visitor will, upon descending a few rough steps cut in the solid rock, find himself in the midst of a faithfully correct model of the Matlock lead-mine in Derbyshire. This model has been built up by Mr. Campbell, who, for nearly the whole of his life, has been engaged in works connected with mines. Every part of the actual mine is shown: there is the little ceaseless stream that is always running in this description of mines; there is the shaft through which the produce of the mine is drawn, and by means of which the miner ascends and descends; the miner's foot-ways and tracks: there is the pick and the tools of the miner, the veins of ore, and everything essential to set up the working of a small mine upon one's own account. From the lead-mine we may proceed to examine the iron-producing strata; and it is in contemplation to display the lower orders of stratification, including the old red sandstone, in which all traces of even vegetable existence cease; and "deeper and deeper still," the vast and dateless rocks of slate, beneath which the solid and everlasting granite extends its impenetrable barrier, and forbids further research to the utmost efforts of all human perseverance. Enough, however, has been effected to place the science of geology among the most interesting pursuits that can occupy the mind, and the most likely to lead to a more perfect understanding and adoration of the Great Author of the universe; and, in the words of our immortal poet—

"———————— to extol
Him first, Him last, Him midst and without end."

In conclusion, we would observe that it is impossible to look back upon the wonders of nature and art, which we have alluded to and described, without recollecting—what indeed ought never to be forgotten by any one who has seen, or even only heard of them—that the Exhibition, which brought far distant nations into bonds (for the time being, at any rate) of kindliness and confidence, and afforded to tens and hundreds of thousands the most intellectual and gratifying of spectacles ever placed on so varied and extensive a scale before human eyes;—that this Exhibition was the blessed offspring of forty years' peace betwixt our own beloved country and all the rest of Europe. Most true is the observation of the poet—

"Peace hath her victories no less than war."

Need we ask if the results of art and industry could have been produced during as lengthened a domination of war, with all its attendant horrors and sufferings? or if (even granting their production possible) they would have found, in any portion of that time, the public mind fitted for the enjoyment and appreciation of them? The New Crystal Palace, that may truly be designated—

"——— Mater pulchrâ, filia pulchrior,"

the Palace of the People—had its foundation laid under the same blessed influence of peaceful and prosperous times; and we may be allowed to conclude our present work with the hope, that the clouds which have since gathered in the political horizon of Europe, may be speedily and happily dispersed; that soon the sword may again be changed to the ploughshare, and the murderous manufacture of instruments of destruction and death, give way to the increased production of everything by which the ingenuity and intelligence of the human race may add to its social comforts and civilised refinements.

THE END.